



ENVIRONMENT

Gilead staff across different functions prioritize a wide array of environmental issues and identify opportunities to **reduce natural resource usage.**

Working on an office-by-office basis, our teams tailor environmental performance improvements to the needs of a site's individual functions. The following is a summary of 2015 achievements from Gilead sites around the world.



Noah Springfield, Pharmaceutical Development and Manufacturing, Gilead Oceanside



Foster City, California, USA

In 2015, Gilead's employee population grew by 12 percent, with many of those new employees working from our Foster City headquarters. Located about 20 miles outside San Francisco, Gilead's headquarters is home to administrative offices, commercial teams and research and development groups.

WATER CONSERVATION

The State Water Resources Control Board for California recently voted to extend the current water-related drought measures, put in place in June 2015, to October 2016. Charged with reducing water usage by 12 percent, Gilead implemented measures and practices that achieved a 23 percent reduction in landscape water use from a 2013 baseline, far exceeding Foster City's version of the state mandate. This reduction in water use was the result of careful management of the irrigation controllers, constant monitoring for leaks, equipment modifications and an investment to convert from turf to drought-tolerant plants, which require less water to maintain.

SUSTAINABLE BUILDING PRACTICES

In the past year, Gilead has completed construction of a laboratory building and its accompanying parking garage. Both structures were designed to comply with California Building Code Title 24 and CALGREEN for building construction. In addition, the new lab space has been designed with integral daylight collection features, smart climate control systems and energy-efficient appliances. Another new building features energy-efficient elevators, which have been designed to eliminate the need for large machine rooms and cable and pulley systems. Implementation of the new elevator system promises a lower energy footprint and less stress on the building structure.

All new lab buildings are designed to incorporate variable flow hoods in the lab space. In contrast to the standard hood design, variable airflow hoods allow dynamic control of air flow inside each individual hood. As soon as the sashes are closed, the air flow ramps down,

allowing each hood to save enough energy to power 3.5 households per year. Our latest lab building houses more than 200 variable airflow hoods, resulting in enough energy savings to power more than 700 households in a year.

ENERGY CONSERVATION

Across campus, Gilead has taken measures to reduce its overall energy consumption. Energy-efficient LED lighting fixtures have been installed in both indoor and outdoor locations. In 2015, Facilities teams managed upgrades to several building management systems across the campus, including night and weekend energy setback programs.

In addition, Gilead participates in our local utility company's load shedding demand response program, which automatically reduces lighting, heat and air conditioning activities during peak energy hours. Gilead has outfitted all owned buildings with energy and asset-level monitoring systems to continuously evaluate performance-improvement opportunities, prioritize resources on highest impact areas and optimize energy efficiency. Gilead's similar 2014 efforts resulted in more than \$200,000 in cost savings. We expect to see a steady growth in energy and operational savings through persistence and incremental new opportunities.

RECYCLING AND DIVERSION FROM LANDFILL

Following an informal internal audit of the trash enclosures across campus in the fall of 2015, several improvements were made to the tri-bin collection systems. Based on the findings, Gilead made updates to ensure a consistent color-coding system throughout the waste collection process was in place in an effort to shore up the Foster City campus' already high waste diversion rates. In 2015, the Foster City campus achieved a 73 percent diversion rate in the first half of the year and a 68 percent diversion rate in the latter half of the year.



The parking garage at 355 Lakeside Drive on Gilead's Foster City campus features electric vehicle charging stations



In 2015, Gilead's employees saved a total of more than 1.75 million pounds of CO₂ by utilizing various alternative transportation methods to get to and from work.

ALTERNATIVE TRANSPORTATION

In 2015, Gilead's employees saved a total of more than 1.75 million pounds of CO₂ by utilizing various alternative transportation methods to get to and from work. Since 2012, we have been recognized by the Bay Area Air Quality Management District as a top participant in its annual [Great Race for Clean Air](#): a program that challenges companies to find alternatives to commuting in single-occupant vehicles. Gilead offers employees an array of flexible alternative transportation options:

- **Shuttles** – Gilead subsidizes 30 percent of the public transportation cost for the “last mile” shuttles, which bring employees from the Millbrae Bay Area Rapid Transit Station to Gilead's campus.
- **Vanpool/Ride Share** – 53 percent of employees who utilize alternative transportation at Gilead opt to commute by vanpool and ride share programs.
- **Mass transit** – Full-time employees who commit to using alternative transportation at least 50 percent of the time can receive a \$100 tax-free voucher per month that can be applied to any public transportation service.
- **Electric vehicle charging stations** – The 355 Lakeside Drive parking garage, which opened in 2015, features 24 EV parking stalls with charging stations.
- **Bike services** – Gilead's campus features a convenient onsite bike repair service for our employees who choose to commute by bike. The campus also has bike lockers, bike locking stations and an onsite gym with showers.



Darryl Kato, Medicinal Chemistry, Gilead Foster City

Stockley Park, U.K.

In 2015, Gilead completed a large-scale facilities improvement project at our international headquarters in Stockley Park. Environmental efficiency and stewardship was a primary concern of the improvement project, which brought the facilities to Building Research Establishment Environmental Assessment Method (BREEAM) Very Good specifications. Throughout the project's new construction and overhauls, Gilead sustainably sourced building materials, carefully managed water usage and waste disposal, and controlled our resource footprint through submetering. The completed retrofits minimize emissions, utilize recycled materials and enable waste diversion from landfill. Combined, the retrofits spanned more than 97,000 square feet and took 11 months to complete.

GABBIE COONEY AND BREEAM CERTIFICATION

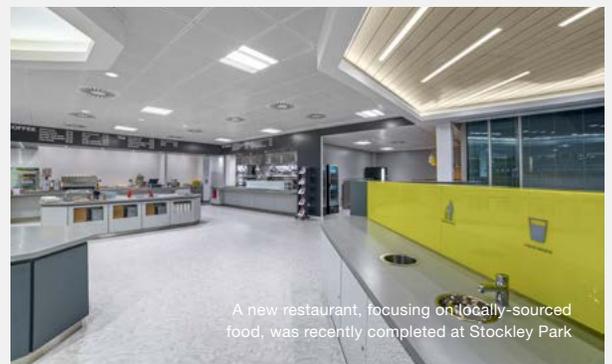
Gabbie Cooney | Operations & Facilities Manager

In 2015, Gilead has increased its focus on sustainability initiatives in the office spaces that we occupy. Gabbie Cooney, Associate Director of Facilities based at Gilead's Stockley Park office, leads efforts to identify opportunities for sustainable measures in its buildings and facilities.

Responsible for overseeing Gilead's real estate and facilities portfolio for international markets, Gabbie has recently been focused on pursuing buildings with sustainable measures already in place. "Our international properties are leased, which can be limiting in sustainable construction options, so we've focused on leasing buildings that carry ratings of BREEAM Very Good or LEED Silver status," says Gabbie. Recent leasehold acquisitions that met these standards include the offices in Milan, Israel and High Holborn.

In some cases, like Stockley Park, Gabbie has been able to partner with the landlord to influence the sustainable design of the building. "We are able to put the infrastructure in the building, as we will maintain it as part of the lease. In that way, we can target sustainable building practices," says Gabbie. This includes things like environmentally safe adhesives used in partitions, submetering and non-return valves for water use, and even things like sustainably-sourced building materials such as wood. "As part of the lease negotiation, we discuss with the landlord the BREEAM status that we want to achieve — we then work together to engineer and design the building to achieve that status, ensuring both functionality and sustainability aspects work hand in hand," says Gabbie. There is a lot of thought put into maintenance including pollution control and resource conservation initiatives in relation to water, air, solid waste and noise. The theme of sustainable sourcing carries through in the building's new restaurant that focuses on offering locally sourced, seasonal food.

Looking ahead, construction has been initiated on the new Cambridge office, with construction slated for completion in late 2017. Continuing to push the sustainability focus, this building will have photovoltaic cells on the roof and electric car charging points.



A new restaurant, focusing on locally-sourced food, was recently completed at Stockley Park

La Verne, California, USA

In 2015, Gilead continued the construction of a brand new site in La Verne, California. The 23-acre campus includes manufacturing, central utilities plant and warehouse facilities and is expected to be completed in 2016. During construction, approximately 600 tons of waste have been diverted from landfill, resulting in a 95 percent diversion rate.

Sustainability is embedded in the design concept, from the selection of environmentally responsible building materials to recycling of construction waste. Highlights include:

- **Energy Efficiency** – The building’s roof has been designed to accommodate the future addition of solar panels. Natural light will illuminate the building through skylights, solar tubes and daylight-collection design features. In addition, the building has been designed in partnership with a Savings by Design SoCal Edison program from the local utility company.
- **Sustainable Buildings** – The central utility plant for the site has heat recovery chillers, variable speed options on nearly all fixtures, ultra-high-efficiency hot water boilers, high-efficiency LED lighting throughout and a building management system to monitor resource usage in real time, allowing staff to respond quickly to usage spikes and adjust systems accordingly. Labs also feature a system that is used to remove solvents from air emissions, and there is a pure steam generator inside the building to recover reject water for use as “cool off” water.
- **Water Conservation** – Mindful of our water use, the grounds are planted with drought-tolerant foliage, and water-saving equipment is used throughout the building, including low-flow toilets and automatic faucets.
- **Recycling & Waste** – During construction, metal collection and recycling are separated, with other waste separated offsite. Any hazardous material is disposed of offsite through a third party.



During construction, approximately 600 tons of waste was diverted from landfill, resulting in a 95 percent diversion rate.





Oceanside, California, USA

Gilead's Oceanside facility, which develops, manufactures and tests biologics candidates, is expanding. Between 2015 and 2016, the site is adding two new buildings, the first of which completed final construction in 2015. This new construction was completed to CALGREEN and new CA Title 24 requirements. The building features three electric vehicle charging stations and other sustainable design features. A combined office, lab and warehouse space is expected to be completed in 2016 and will be Gilead's first LEED Silver certified construction.

Throughout this expansion, Gilead is also taking care to modernize and improve some of the older buildings on campus, including:

- Replacing the building's plant steam boilers with a more efficient, modern design that saves natural gas and energy, estimated to be a 15 to 20 percent improvement in fuel efficiency over the old model,

- Retrofitting the walk-in environmental chambers with new refrigeration systems to eliminate undesirable refrigerant and improve energy efficiency.

The Oceanside site is committed to the principles of environmental stewardship and focuses on pollution prevention and effective resource management. The site's local Safety and Environmental Team promotes environmentally sustainable practices throughout its operations. Attention is made to water and energy conservation practices and community involvement such as an annual beach clean-up. The site conducts source segregation to allow for offsite recycling of paper, cardboard, plastics and metals to minimize the amount of solid waste sent to landfills. Hazardous waste generated onsite is properly managed, and to the extent possible it is treated at offsite energy recovery facilities.

Edmonton, Alberta, Canada

Gilead's Alberta site is a laboratory and manufacturing facility that handles the research and scale-up of our clinical development candidates, and the teams working in Alberta also manufacture active pharmaceutical ingredients for some commercial products.

In keeping with the trend of growth across the company, this site opened a new lab building in 2015 that was subsequently awarded the Alberta Top Projects award for sustainability. The new three-story, 65,000-square-foot facility includes office and lab space. The site uses an innovative approach to recycle waste heat from the labs' fume hoods and redistribute the heat via the HVAC system. A high-performance building envelope wraps around the building and provides significant energy use and cost operating reduction. These innovations result in a 35 to 40 percent energy saving compared with designs that meet the minimum energy code. In addition, the new lab building maximizes daylight usage and avoids runoff issues by eliminating storm drains as a design element. All rain water is managed entirely on site.

In 2015, the Alberta campus extended its ISO 14001 certification to the entire site, unifying the east and west sides of the campus with

the same procedures, training and audits to ensure proper adherence to sustainability standards. In order to minimize air emissions, part of the facility's environmental controls includes the use of a vent condenser to capture volatile organic compounds and send them offsite as a liquid for solvent or energy recovery. Since the facility was upgraded in 2014, the improvements allow the site to continue to record a 40 percent reduction in liquid nitrogen consumption, for an estimated savings of 600,000 cubic meters per year. The investment for this upgrade reached its full payback in July 2015.

The composting, recycling and redirecting of landfill waste on site continues to perform at high levels, maintaining its approximately 90 percent diversion rate since the end of 2014. Instrumental to the success of this system, a 24-person volunteer Green Initiative Committee assists in maintaining the education and awareness of sustainability initiatives across the Alberta site. This group engages colleagues throughout the year with projects including Earth Day celebrations, environmentally focused scavenger hunts, improvement projects and annual departmental audits focusing on improvements to our sustainability goals.



TOP RIGHT: Michelle Esanu, Process Development, Gilead Alberta
BOTTOM: Gilead, Alberta site



Cork, Ireland

Gilead's Ireland operations are responsible for manufacturing, quality control, packaging and the release and distribution of the company's products in the European Union and other international locations. Featuring many environmentally conscious measures, including an energy monitoring system and a rooftop garden providing natural insulation, Gilead's Cork site is designed with sustainability principles in mind. With a particular focus on eliminating landfill waste, the site has maintained its zero-to-landfill status for the third consecutive year in 2015. About 22 metric tons of waste are diverted annually from Ireland's landfills, avoiding cost incurrence for landfill disposal.

In 2015, the Cork site turned its focus toward optimizing energy usage, reducing water consumption and exploring creative and sustainable ways to use its office space. Facilities experts began by adopting a new energy source, purchasing 100 percent green-generated electricity from wind farms. The Cork site was able to implement this change with no impact to business cost or supply reliability.

In addition to the changes in supply, the campus was able to reduce overall energy consumption by 31 percent. Constantly looking to improve sustainability at the site, the Cork facilities team installed energy monitoring, power quality and building management systems. Each of the new systems helps staff identify opportunities to improve efficiencies in the gas and boiler generation rooms. These improvements ultimately reduced energy consumption from 41,000 Kw/Hr to 28,000 Kw/Hr. The systems also help identify inefficiencies in the way that water was being consumed, and Cork facilities staff made changes that have resulted in an overall savings of 20,000 liters annually.

One of the more visible improvements made to the Cork site is the addition of a biophilic, pop-up meeting space. Gilead created the space, designed to encourage collaborative ideas and contribute to the sustainability program, using recycled materials. Constructed in 20 hours over a weekend, volunteers painted old furniture and set up the space. In the first month, there was a 75 percent utilization rate of the space and a 40 percent reduction in bookings for the existing traditional meeting rooms. This has had a secondary impact on reducing administrative time associated with finding and booking available meeting rooms.



James O'Regan, Engineering Services, Gilead Cork



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Cambridge, U.K.

Gilead's office space in Cambridge, U.K., sits on the edge of Granta Park, a green space amid the city's urban activity. Projects in 2015 have ensured that, since the early part of 2016, the Cambridge site has achieved a zero-to-landfill status. This means that — through its work with local utilities and collections services — the Cambridge facilities team ensures no site waste is sent to local landfill.

The design of a new building began in 2015, which will include low carbon features and photovoltaic solar panels, and this building is planned to open in 2017. Additional sustainability efforts are planned, such as the implementation of an environmental management system.



Lovely Chhabra, IT, Gilead Cambridge