SUSTAINABILITY @ PURDUE



Sustainability Master Plan 2020

ENERGY



E-1 Cut Carbon Emissions in Half





WATER



W-1 Reduce Water by 30%



W-2 Strategy to Eliminate the CSO

MATERIALS



M-1 Recycle Half our Waste



M-2 Recycle 75% + Construction Waste



M-3 Recycle All Institutional e-Waste

BUILDINGS



B-1 LEED Silver for New Buildings > \$10M



B-2 High Performance Requirements for Building Renovations < \$10M

GROUNDS



G-1 Plant One Tree per Day



G-2 Sustainable Landscapes for Purdue



G-3 Double Bike Infrastructure

E-1 Cut Carbon Emission in Half



GOAL: Reduce Scope 1 and 2 carbon emissions by 50% by FY25, with FY11 as the baseline year.

KPI: % reduction in carbon emissions from FY11 baseline

FY20: 25.9% reduction to date





Notes: (1) Graph shows Scope 1 and Scope 2 emissions.

Source: Energy & Utilities

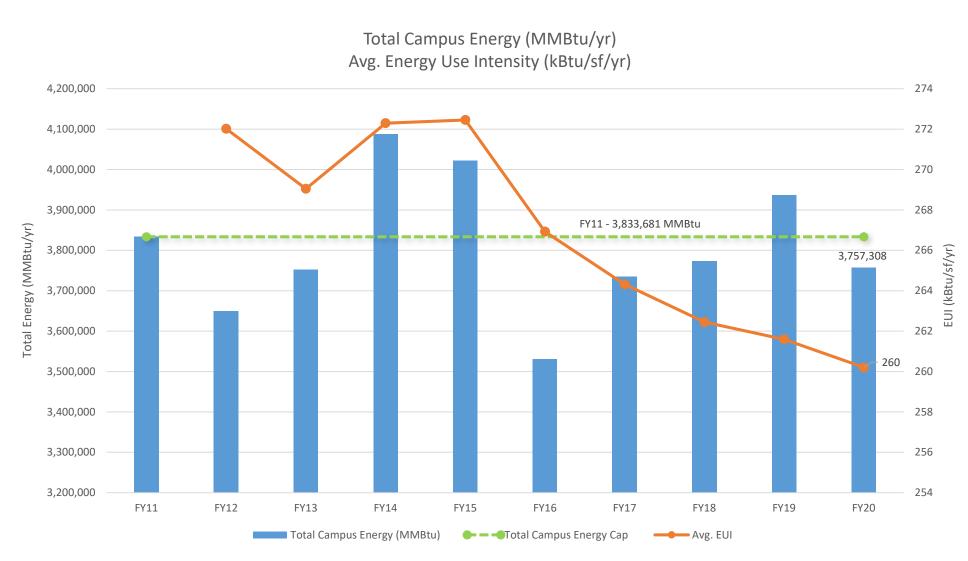
E-2 No Net Gain



GOAL: Cap total energy consumption at FY11 levels in order to show no net gain in total energy consumption despite an increase in total campus gross square feet.

KPI: MMBtu total annual energy use – [FY11 level = 3,833,681 MMBtu]

FY20: 3,757,308 MMBtu total annual energy use (with approximately 1.5M GSF of growth)

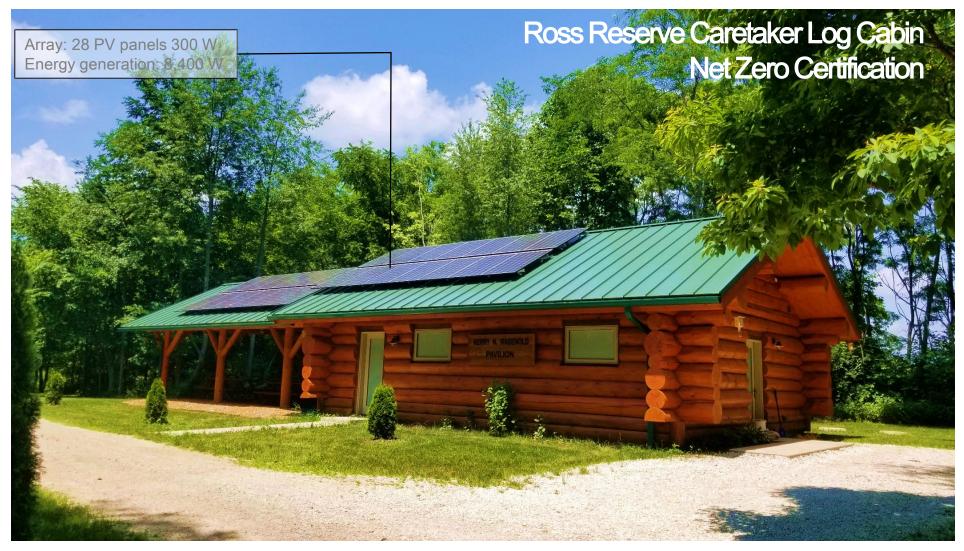


Source: Energy & Utilities

GOAL: Pursue 500 kilowatts of renewable energy capacity on campus by FY25.

KPI: Kilowatts of renewable energy installed.

FY20: Ongoing evaluations of opportunities with 3rd party vendors (P3 and PPA/VPPA)



W-1 Reduce Water by 30%

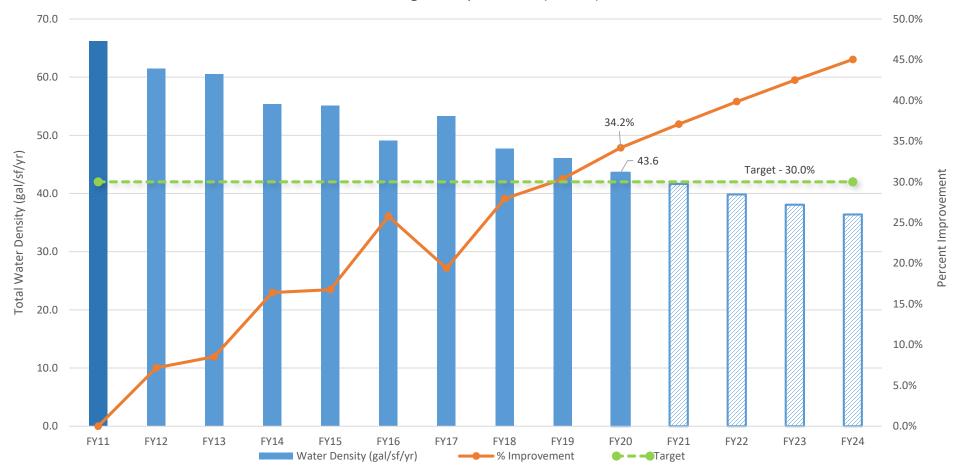


GOAL: Reduce potable water consumption inside buildings and for irrigation by 30% by FY25 on a gallon per square foot basis, with FY11 as the baseline year.

KPI: 30% reduction of campus water use on a gal/sf/yr basis

FY20: 34.2% reduction to date (gal/sf/yr basis)



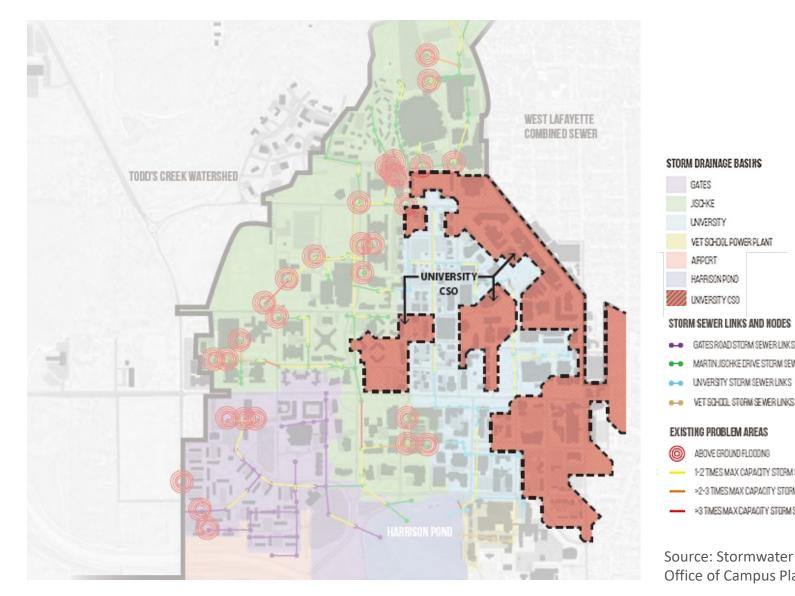


Source: Energy & Utilities

GOAL: Develop a strategy to eliminate the University combined sewer overflow (CSO) system on campus.

KPI: Development of a strategy to eliminate the University combined sewer overflow (CSO) system on campus

FY20: Green infrastructure / stormwater study -75% completed



Source: Stormwater Feasibility Study – Office of Campus Planning and Sustainability

GATES

JISCHKE UNIVERSITY

VET SCHOOL POWER PLANT

GATES ROAD STORM SEWER LINKS

UNIVERSITY STORM SEWER LINKS

ABOVE GROUND FLOODING

MARTINJISCHKE ERIVE STERM SEWER LINKS

>2-3 TIMES MAX CAPACITY STORM SEWER LINKS

>3 TIMES MAX CAPACITY STORM SEWERLINKS

HARRISON POND UNIVERSITY CSD

M-1 Recycle Half our Waste



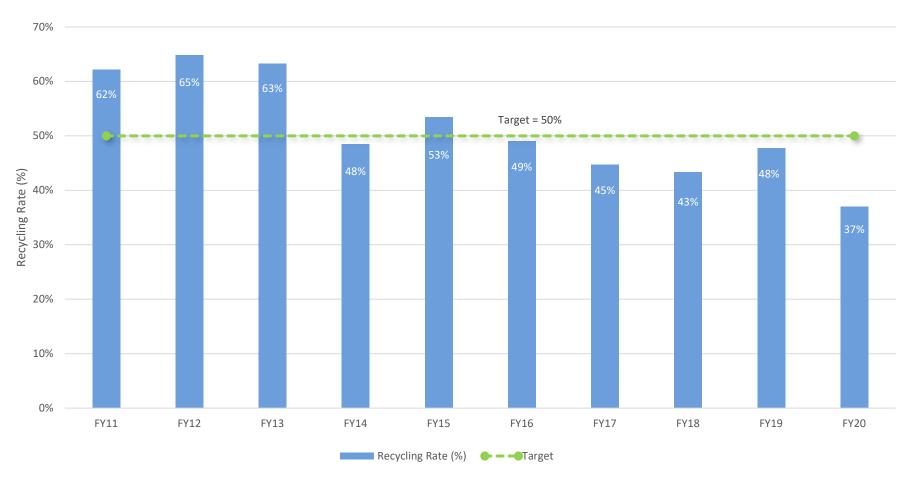
GOAL: Achieve an annual campus waste recycling (diversion) rate of 50% by FY25.

KPI: Annual campus waste recycling (diversion) rate

FY20: 37% Annual campus waste recycling (diversion) rate

Campus Recycling Rate

(Excluding the gravel pit + Wade fly ash + industrial activities - C&D)



Source: Data compiled by the Office of Campus Planning and Sustainability

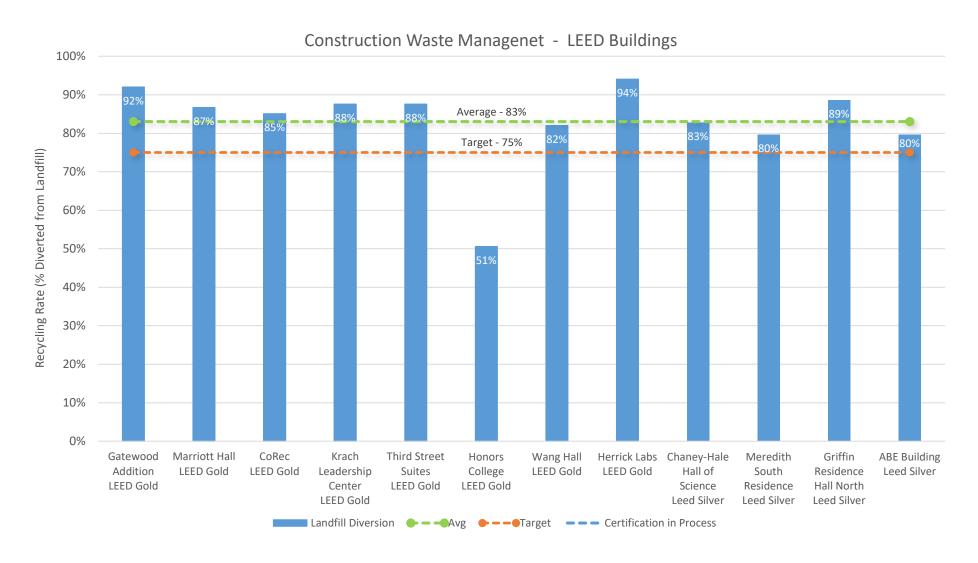
M-2 Recycle 75%+ Construction Waste



GOAL: Require all construction projects with a project cost greater than \$5,000,000 to recycle at least 75% of their waste by FY25.

KPI: Recycling rate of construction waste from projects with a project cost greater than \$5M

FY20: 83% recycling rate (average on LEED projects to date)



M-3 Recycle All Institutional e-Waste



GOAL: Recycle, reuse or refurbish 100% of institutional e-waste by FY25.

KPI: Recycling rate of institutional e-waste

FY20: 100% reused, recycled, or refurbished to date



Source: Materials Management and Distribution

B-1 LEED Silver for New Buildings >\$10M



GOAL: All projects with a total cost greater than \$10M will achieve LEED Silver certification or better.

KPI: Achieve LEED Silver certification on building projects >\$10M

FY20: Current projects pursuing LEED:

3: In construction

1 : Certification

3: Recently certified







In Construction

Recently Completed









B-2 High Performance Renovations <\$10M



GOAL: Develop and require prescriptive high-performance criteria for projects with a total cost of less than \$10M.

KPI: Development of prescriptive performance targets and high-performance criteria for projects with a total cost of less than \$10M

FY20: FY22 in-house project

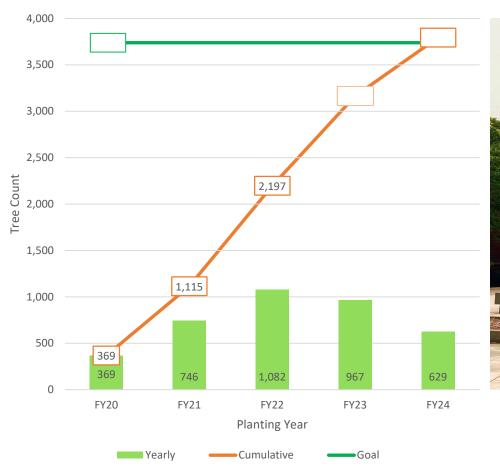


GOAL: Plant at least 365 new trees per year with the total trees planted by FY25 landing at 1,869 – goal doubled by Pres. Daniels to 3,738 trees.

KPI: Trees planted since beginning of

FY20: Campus tree plan developed - 369 trees to date

1869x2 Tree Plan: Projected Tree Planting





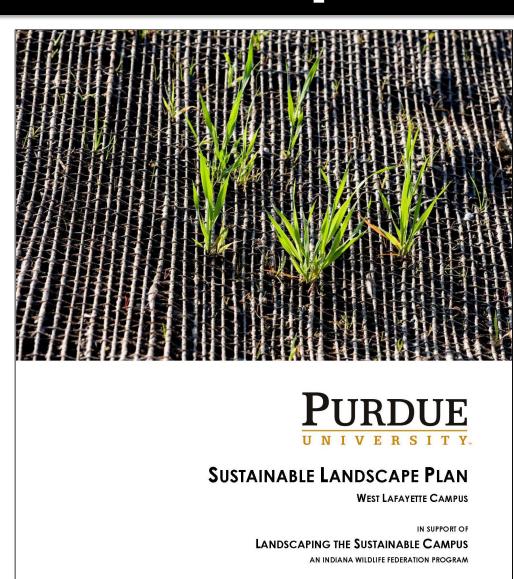
G-2 Sustainable Landscapes for Purdue



GOAL: Deliver an update to the Sustainable Landscape Plan by FY22 to incorporate current best practices and leadership opportunities. Align 100% of grounds with the updated plan by FY25.

KPI: 1 - Update Plan 2 - 100% alignment with new plan

FY20: FY21 activity to develop draft plan



APRIL 2012

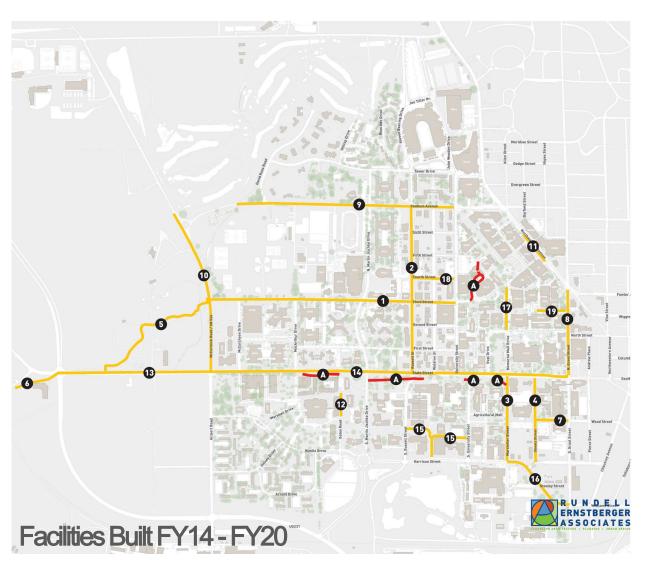
G-3 Double Bike Infrastructure



GOAL: Increase bicycle infrastructure by 100% by FY25, with FY14 as the baseline year (6.25 mi baseline).

KPI: % increase in length of bicycle infrastructure

FY20: 5.69 mi. installed (91%)



Purdue Bicycle System Map Facilities Built 2014 - 2020

- 1. 3rd Street Sharrows Length = 0.73 mi
- 2. Russell Sharrows Length = 0.50 mi
- 3. Marsteller Bike Lanes Length = 0.25 mi
- 4. Sheetz Street Sharrows Length = 0.25 mi
- . Hort Park Bike Path Length = 0.45 mi
- 231 Bike Path Length = 0.14 m
- Wood Street Bike Lanes/Sharrows Length = 0.10 mi
- 8. Grant Street Bike Lanes/Sharrows Length = 0.28
- 7. Stadium Cycle Track Length = 0.65 mi
- McCormick Cycle Track Length = 0.49 mi
- Northwestern Cycle Track Length = 0.10 mi
- 12. Discovery Park Cycle Track Length = 0.07 mi
- 3. State Street west of McCormick Length = 0.59 mi
- 4. State Street McCormick to Grant Length = 1.07 mi
- 5. Ag School Sharrows & Cycle Track Length = 0.26 mi
- Williams Street Connector Length = 0.24 mi
- 17. Centennial Mall Cycle Track Length = 0.32 mi
- 8. 4th Street Bike Lanes/Sharrows Length = 0.13 mi
- 19. Central Drive Cycle Track Length = 0.09 mi
- A. Bike Facilities Removed Length = -0.33 mi

Source: Purdue Bike Infrastructure Update - April 2021

SUSTAINABILITY @ PURDUE

