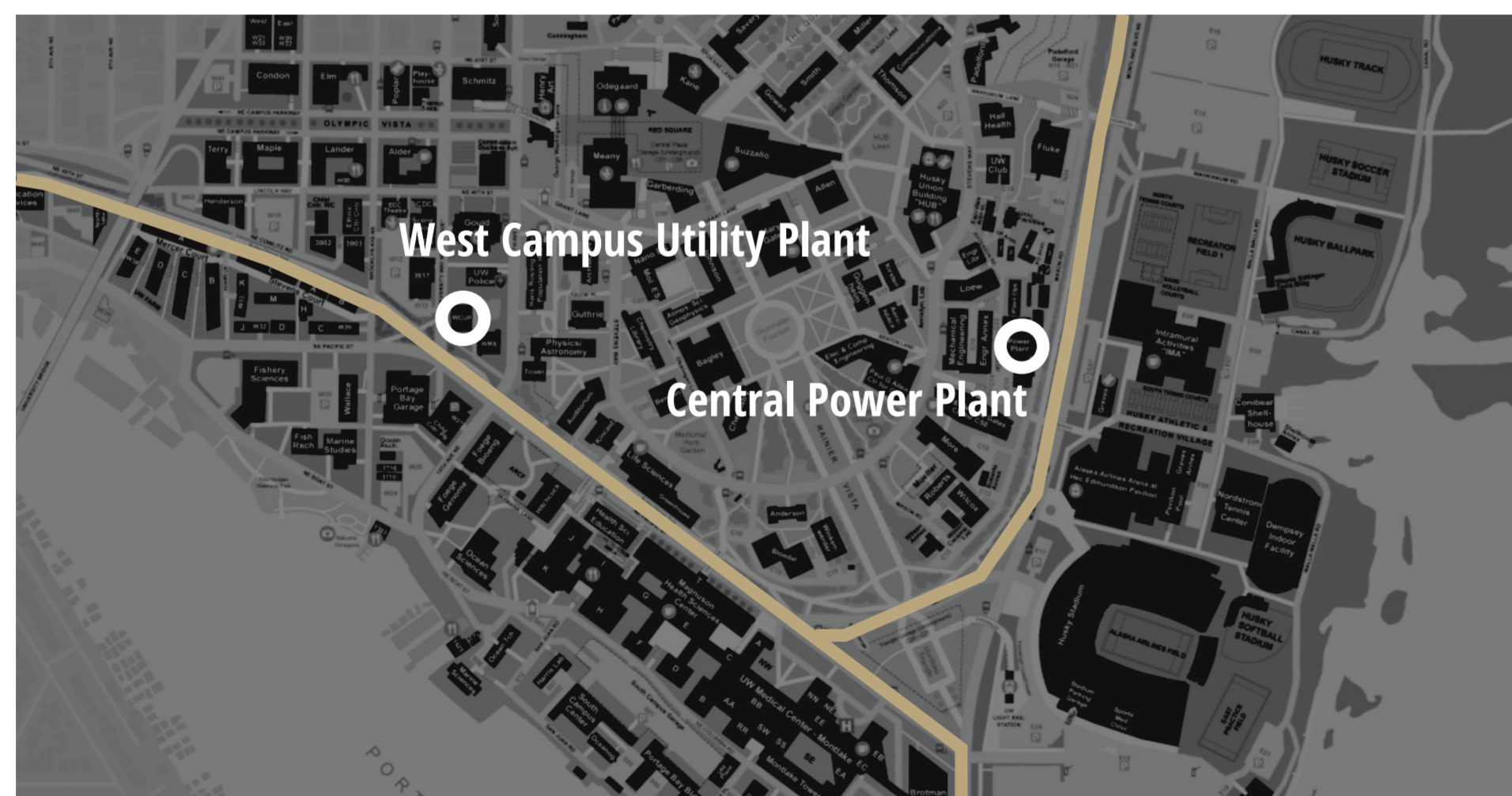


RECYCLING SEWER ENERGY TO HEAT CAMPUS

Sewage (water from showers, sinks, toilets etc.) contains energy in the form of heat. The average temperature of the sewage flowing through pipes in King county ranges from 54° F in the coldest part of winter to 67° F in the warmest part of summer. Heat pump technology makes it possible to recover that energy and use it to heat buildings and water again.

Sewer lines have substantial heat

Every day over 7 million gallons of sewage flows within 50 feet of the Central Power Plant and almost 10 million gallons flows within 100 feet of the West Campus Utility plan. The available energy in this sewage is enough to supply 20% of the heat we need to keep our buildings warm and hot water running from our faucets and showerheads.



Source: Sewer line heat: <https://kingcounty.maps.arcgis.com/apps/View/index.html?appid=52b9d57419714eaea16a4b9d8d7f7c12>

How heat is extracted from sewage

Sewage is extracted from the sewer main into a holding tank. Liquid from the sewage goes through a heat exchanger where heat is transferred via a refrigerant to clean water that is then circulated to buildings on campus through our district energy system.

