



University of Wisconsin-Stevens Point

Natural Resource Planning
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Community Bark Park (6 Acres)



The addition of a community off-leash dog park fills a void in Amherst. It offers an opportunity to foster a sense of community amongst dog owners in the village. It provides a haven for those without yards, such as renters in the adjacent apartments, or those who just need a little extra space to exercise their pets. We suggest creating a fenced-in area with a short, low system leading west toward the Tannous River. Mixed-height vegetation comprised of native pollinator attraction plants and grasses should be implemented to offer multiple "sanctuary" function. This area serves as a buffer greenspace between the Business Park and protects the nearby Tannous River and residential areas from potential pollution, mainly from light and noise pollution.

Visualize park area for dog trails, and an adjacent apartment building.

Symbiotic Developed Land Uses

As mentioned in our previous research an equine sports arena and a commercial bakery would be less land uses that would pair well with the brewery because it reuses the waste produced by Central Waters. With integration of the solar farm, businesses like this could run with very minimal costs. Equine sports main running cost is electricity. Bakeries also use large amounts of electricity if they use electric ovens. These land uses would be located anywhere in the purple outline.



Other structures, such as animal processing and/or grain, millage, and/or processing facility.

Compost (1.6 Acres)

The area outlined to the north is where the current compost site sits. Expansion to the south allows for the compost to be heated and ground which can stop illegal dumping. The area to the south would also allow for the compost site to double in size from 0.8 acres to 1.6 acres, maintaining space for compost and yard waste is important. Compost can help stop the production of greenhouse gases that are created from decomposing organic matter that would normally go to landfills. Compost helps treat toxic organic matter in a manner that produces less methane.

Green Infrastructure

The effective use of green infrastructure is a valuable opportunity to mitigate the impact of the Business Park on local natural resources. An impact of the Business Park is the runoff of sediment and pollutants on impervious surfaces, such as rooftops and pavement. Reducing runoff lessens the amount of water that needs to be processed through wastewater facilities, prevents erosion, and can reduce toxins entering the watershed. These practices can go a long way especially with proximity to water sources. Rain gardens, permeable surfaces, and water catchment systems are sustainable methods to mitigate these impacts.



Left: Rain gardens collect water runoff from roofs for the reasons it is to be directed into the ground. Center: Permeable pavement can be placed instead of parking lots to absorb runoff. Right: Simple water catchment system, such as this one, can capture water throughout the growing season to water plants and trees.

Trails

Significant in use is a potential trail that can be integrated into the business park. This trail would have many benefits. One would be connecting to downtown. Many bike leagues and clubs already utilize the business park as a meeting point so why not make it walking and bike friendly. Signage in both black and white are two walking trails that would allow for access to the dog park and the buffer area. Integration of these trails would increase accessibility and eliminate the need for parking and use of cars. The small strips of private land would need to be purchased to connect the trail downtown.



Village of Amherst Eco Business Park Conceptual Master Plan

Each of the following goals seek to address both the needs of Amherst residents, heard through the charrette process, as well as our perceived opportunities for community improvement. Through these goals we hope to protect the small, local businesses of downtown, maintain the village's "small-town charm," and foster the valuable natural resources that provide for the community.

Goals

1. Protect small, local business and downtown character
2. Buffer residential areas from impacts by coating green space
3. Maintain the village's water-centered image through sustainable design
4. Reduce strain on the wastewater facility through sustainable design
5. Provide opportunities for solar development

Note: This is an actual and growing residential area. The proximity of the business park to the area creates the potential for conflict between land uses.

Vegetative Buffers (2.5 Acres)

With the development of manufacturing and industrial land uses, there is potential for significant impacts to neighboring properties in the form of pollution (noise, dust, water). We suggest the addition of a vegetative buffer with a mixed composition of trees, shrubs, and grasses to limit these impacts on nearby areas. A 100-foot wide buffer can filter air particulate by 40-70%, reduce noise by 3-10dB, and screen visibility views (VOC). Further, buffers can be the filtration of water runoff.



Solar Farm (15-21 Acres)

A one-megawatt (MW) solar farm produces enough electricity annually to offset the needs of about 100 households in Amherst (2000 sq ft houses) and roughly 500 acres of land are required per MW of solar capacity. Therefore, a 10MW community-scale solar farm on 15 to 21 acres could offset the annual consumption of Amherst's residential sector. Even in the flat terrain of the currently unutilized land, the Business Park could be a prime site for a solar site. A smaller solar system could offset the energy consumption of the business in the Business Park. One policy option would be to incentivize incoming businesses to contribute to a green energy purchase as part of their agreement.



The Business Park site (shown in green) is a prime location for a solar farm. The site is currently unutilized and is a prime location for a solar farm.

Industrial District (150 Acres)

As there is already industrial and manufacturing land uses to the south-southeast of the Business Park, we suggest considering further industrial development in that same area. This is useful in protecting the residential area to the north from unnecessary impacts of these types of land use. There is a roughly 90-acre (primarily rural) parcel of land to the east that would be a prime location for agriculture manufacturing with easy access to County Road 8, as well as the railroad. We suggest using zoning to other appropriate types of development in the Business Park and surrounding areas. The village should review permitted uses and minimum and maximum lot sizes in related districts.

Alternative Rooftop Uses

The rooftops of large buildings and warehouses are mostly unused space. Currently, there is impervious rooftop in the Business Park later approximately 2 acres. We suggest implementing a maximum impervious surface to set the pace for future development. To meet this goal, developers could be incentivized to implement rooftop gardens or solar panels. Rooftop vegetation is a useful tool to control the runoff of runoff.



Green roof projects made in the summer demonstrate the potential for rooftop gardens. The green roof can help reduce the amount of runoff.