

Mapping Sustainability: City of Fife Parks and Recreation



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Scope

- Five weeks.
- No budget.
- Student Esri License.
- Public domain data sources.
- No existing park data (park features, park furniture, etc.)

Sustainability

“Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permits fulfilling the social, economic, and other requirements of present and future generations.”

(United States Environmental Protection Agency (EPA) 2012)

Sustainability in Parks

- Parks provide opportunities for sustainability to the community through education, green spaces, health benefits, natural areas, and much more.
- Parks can measure their sustainability in the following ways:
 - Cultural (museums, art, and history)
 - Economic (green energy, event revenue, and good use of funds)
 - Environment (providing green spaces, clean streams, and open spaces)
 - Social (festivals, movie in the parks, and car shows)
- All help create the well-being of our community.



Areas of opportunity for sustainability

- Sustainable table.
- Sustainability education and green leadership.
- Waste reduction.
- Water conservation.
- Walkability.
- Greenhouse gas emissions (GHG) reduction.
- Renewable energy.

Sustainable Table

Current Environment:

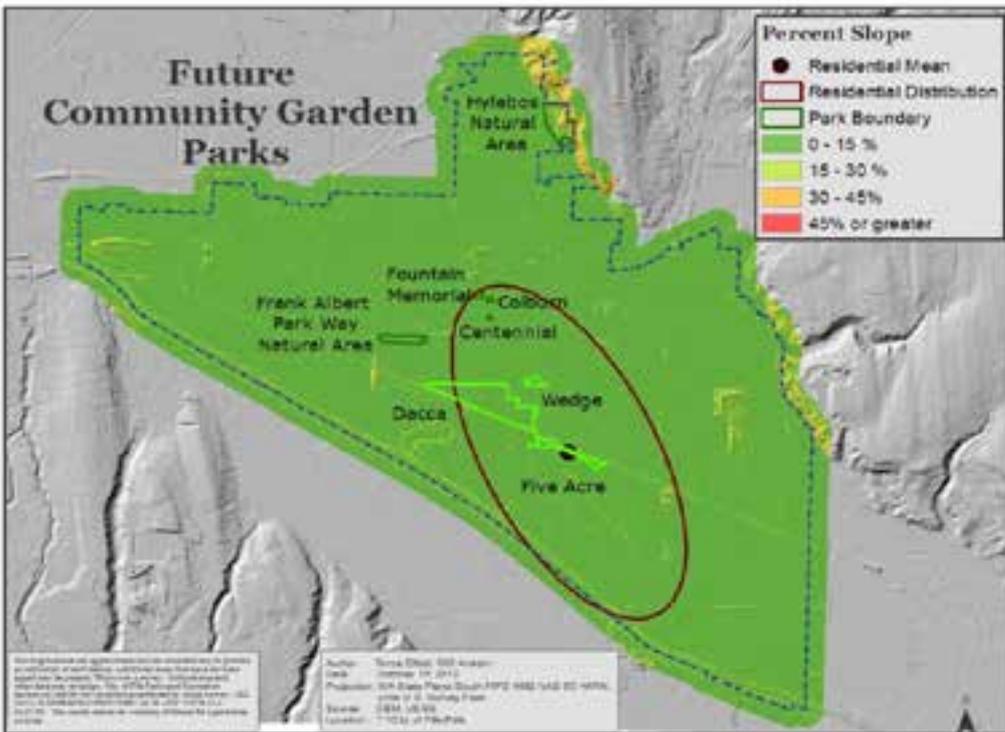
- No major grocery stores within a one mile buffer radius of City of Fife (COF).
- No Farmers' market in COF.
- No community gardens.
- COF Census Tract is considered Food Desert.
- COF does offer a WIC program and senior lunches.

Analysis: Which parks could provide sustainable table options for the citizens of Fife?

Recommendations:

- Build community gardens in Dacca, Five Acre, and Wedge Park and rent plots out for small revenue fee.
- Start a Farmers' market program in Dacca Park on a weekly or monthly basis. Charge vendors a small annual or weekly fee for booth permit.

Sustainable Table



Sustainability education and green leadership

Current Environment:

- No outdoor education program.
- No sustainability education on water conservation, gardening, composting, etc.
- No youth outdoor education programs.
- No current utilization of nature areas and outdoor education facilities.

Analysis: Which parks and facilities can be utilized to teach the community about sustainability? What is the inventory on facilities to implement sustainability education?

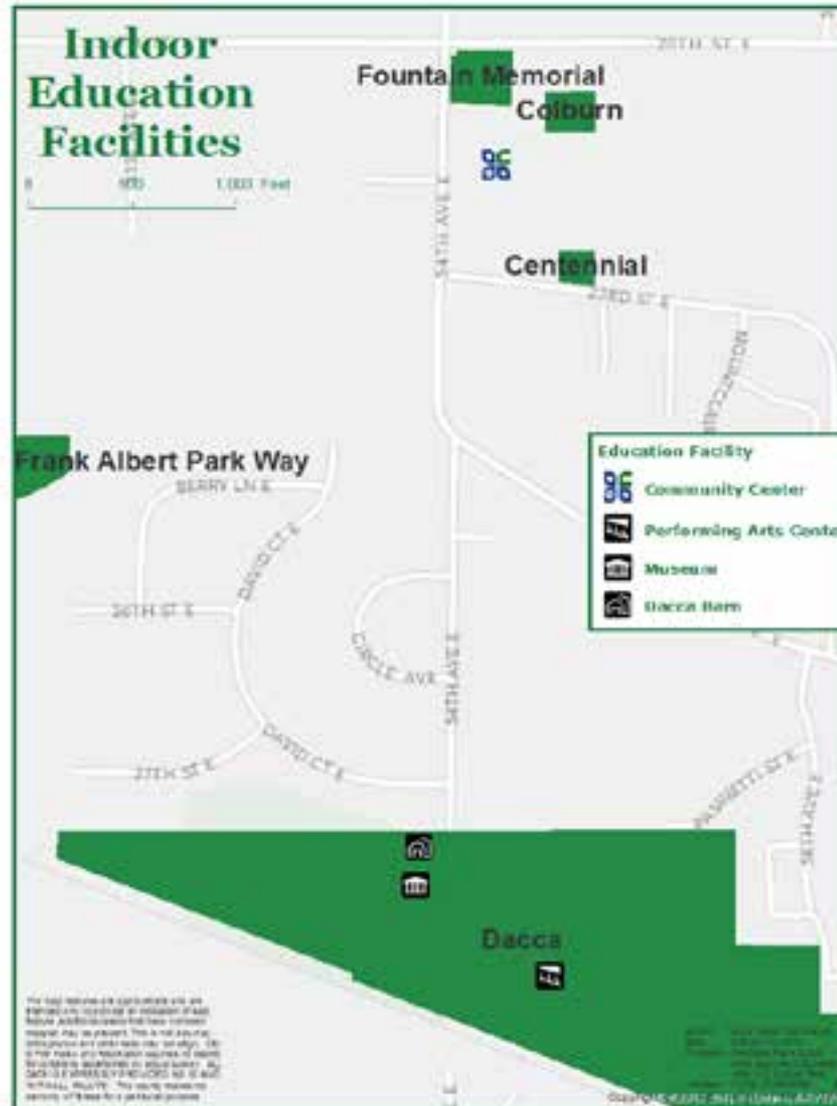
Recommendations:

- Wayfinding signs. Wayfinding signs help citizens and visitors find their way to destinations.
- Utilize nature areas and picnic shelters for outdoor education rooms. Utilize performing arts, community center, Dacca Barn for education.

Sustainability education and green leadership - outdoor education sites



Sustainability education and green leadership. Indoor education sites.



Waste reduction.

Current Environment:

- One recycle container in all of the parks.
- Some parks and nature areas do not have trash cans or recycle containers.
- No composting facilities.
- COF does recycle scrap metal and energy efficient bulbs.

Analysis: Where are there existing features to reduce waste? Are there trash cans, recycling containers, composting facilities in the parks?

Recommendations:

- Install trash cans in parks that do not have them.
- Install recycle containers in parks to promote waste reduction.
- Install dog poop bag stations in parks that do not have them.
- Host education events on waste reduction and host e-cycle events through a partnership with Goodwill.

Water conservation.

Current Environment:

- New irrigation systems in parks with rain sensors and timers.
- No rainwater harvesting.
- No rain gardens built in parks.
- Low flow toilets and aerators in restroom facilities are installed.

Analysis: Where are there existing features to reduce water waste? Are there rainwater harvesting systems in place, cistern utilization, irrigation systems, rain gardens, and updated plumbing fixtures?

Recommendations:

- Install rainwater harvesting systems utilized with cisterns.
- Build rain gardens in parks to collect storm water runoff.
- GPS irrigation system for asset inventory purposes.
- Install timers on showers in Fife Swim Center.
- Install water conserving plumbing fixtures in facilities and parks.
- Host education events on water conservation.

Water conservation.



Walkability.

Current Environment:

- Two walking routes exist within COF.
- Trails in nature areas and paths in parks.

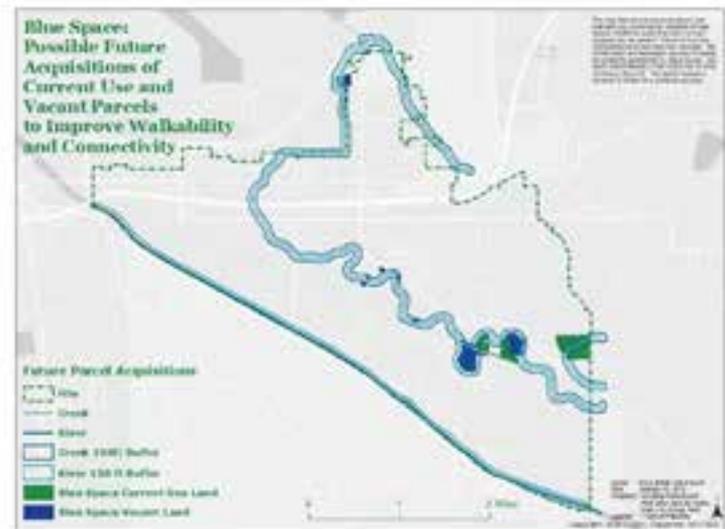
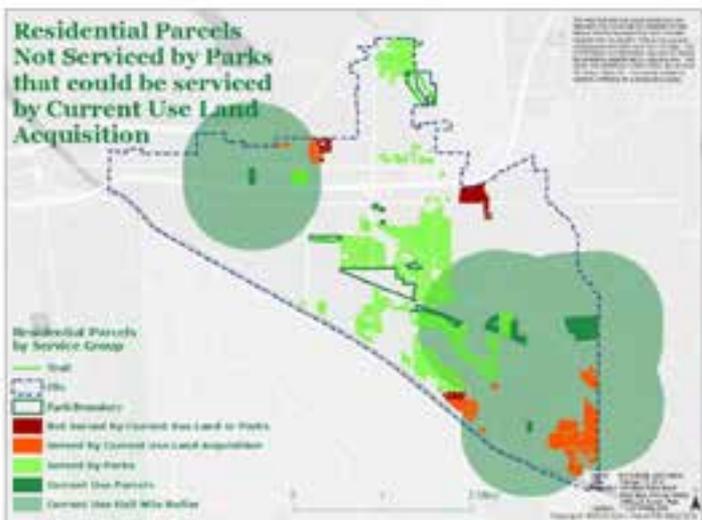
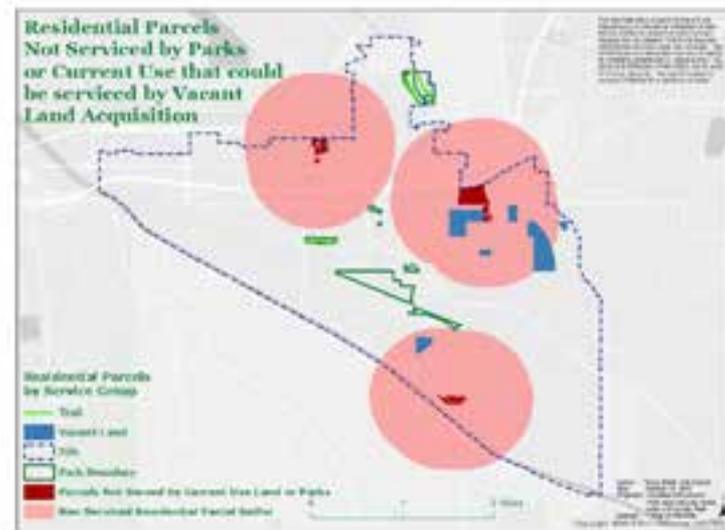
Analysis: Where are there existing trails, paths, and routes that encourage walkability? How can these routes be improved? Where should emphasis of land acquisition be to expand green and blue spaces?

Recommendations:

- Re-route the blue walking path.
- Install pedestrian crossings and lights or re-route red walking path.
- Explore future green space land acquisition.
- Explore future blue space land acquisition.
- Offer carbon-free days or time frames to pedestrian and bicycle traffic only.

Walkability.

Future current use and vacant land acquisition.



Greenhouse gas (GHG) emissions.

Current Environment:

- No Sounder (train) public transportation in COF, no express bus route stops in COF, and no park and ride lots.
- Two local bus routes are present in COF. These routes connect to mass transit in Tacoma and Federal Way.
- Employees participate in commute trip reduction program. No Pierce Transit bus passes are offered to employees as a benefit.
- COF and PRCS fleet does not have hybrid or electric vehicles.
- No Electric charging stations in parks.

Analysis: What type of multimodal options are available within COF? How is COF and PRCS providing multimodal options to reduce greenhouse gas (GHG emissions when visiting parks?)

Recommendations:

- Install a park and ride lot, that would allow for a bus stop for express buses.
- Install electric charging stations at parks or facilities with parking lots.
- Extend bicycle lanes and mark lanes that exists.
- Install bridge or tunnel to provide foot and bicycle connectivity to Five Acre park.
- Offer bus passes to employees as part of the commute trip reduction program.
- Install Automatic Vehicle Locators (AVLs) on COF and PRCS vehicles to monitor idle time and GHG emissions.

Renewable energy.

Current Environment:

- No solar power in use at PRCS facilities or parks.
- No wind power in use at PRCS facilities or parks.
- Energy efficient bulbs in use.

Analysis: Which parks have the potential for solar and wind power?

Recommendations:

- Install solar panels on picnic shelter in Five Acre Park.
- Install solar panels on facilities in Dacca Park.
- Look into installing solar panels in the parking lot in Dacca Park.

Renewable energy.



Photo Source: pv-magazine.com



Source: Cincinnati Zoo & Botanical Garden

Contacts and thank you.



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