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Mapping Sustainability: City of Fife Parks and Recreation

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Mapping Sustainability: City of Fife Parks and Recreation

Abstract

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.

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Sustainability:
City of Fife Parks
and Recreation



T o n y a E l l i o t t
M a s t e r s G I S c
C a n d i d a t e
U n i v e r s i t y o f
D e n v e r
N o v e m b e r 8 ,
2 0 1 2

S u s t a i n a b i l i t y

" S u s t a i n a b i l i t y i s b a s e d o n a s i m p l e p r i n c i p l e : E v e r y t h i n g t h a t w e n e e d f o r o u r s u r v i v a l a n d w e l l - b e i n g d e p e n d s , e i t h e r d i r e c t l y o r i n d i r e c t l y , o n o u r n a t u r a l e n v i r o n m e n t . S u s t a i n a b i l i t y c r e a t e s a n d m a i n t a i n s t h e c o n d i t i o n s u n d e r w h i c h h u m a n s a n d n a t u r e c a n e x i s t i n p r o d u c t i v e h a r m o n y , t h a t p e r m i t s f u l f i l l i n g t h e s o c i a l , e c o n o m i c , a n d o t h e r r e q u i r e m e n t s o f p r e s e n t a n d f u t u r e

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

Four well-beings of community sustainability



Areas of opportunity for sustainability

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

S u s t a i n a b l e T a b l e

C u r r e n t E n v i r o n m e n t :

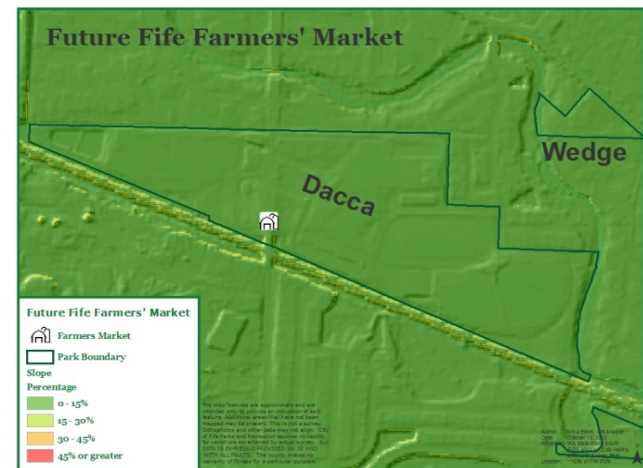
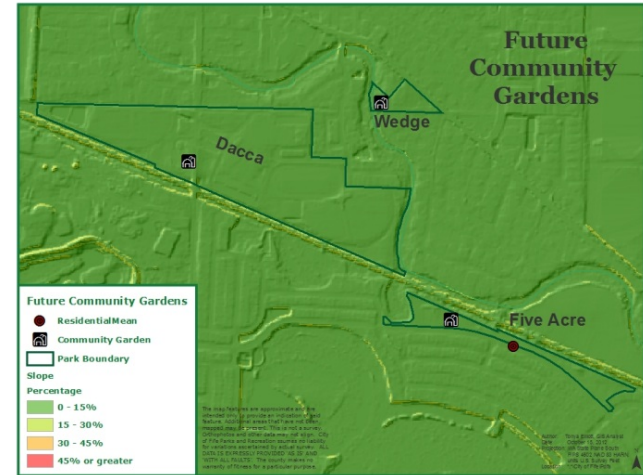
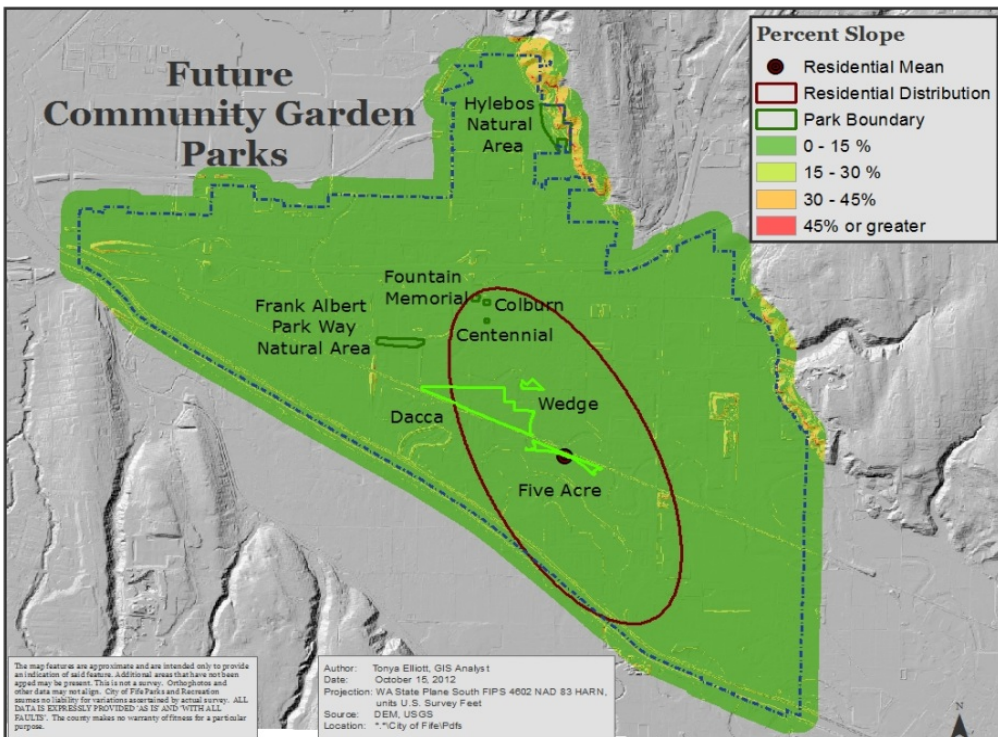
- N o m a j o r g r o c e r y s t o r e s w i t h i n a o n e m i l e b u f f e r r a d i u s o f C O F .
- N o F a r m e r s ' m a r k e t i n C O F .
- N o C o m m u n i t y G a r d e n s .
- C O F C e n s u s T r a c t i s c o n s i d e r e d F o o d D e s e r t .
- C O F d o e s o f f e r a W I C p r o g r a m a n d s e n i o r l u n c h e s .

A n a l y s i s : W h i c h p a r k s c o u l d p r o v i d e s u s t a i n a b l e t a b l e o p t i o n s f o r t h e c i t i z e n s o f F i f e ?

R e c o m m e n d a t i o n s :

- B u i l d c o m m u n i t y g a r d e n s i n D a c c a , F i v e A c r e , a n d W e d g e P a r k a n d r e n t p l o t s o u t f o r s m a l l r e v e n u e f e e .
- S t a r t a F a r m e r s ' m a r k e t p r o g r a m i n

Sustainable Table



Sustainability education and green leadership

Current Environment:

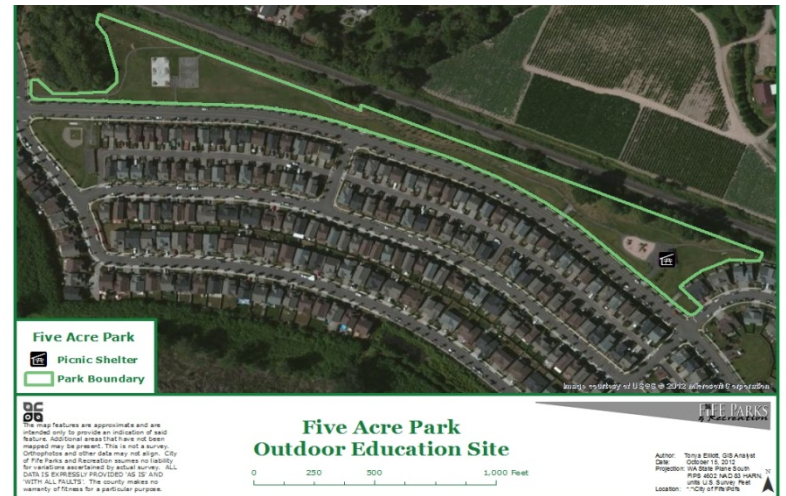
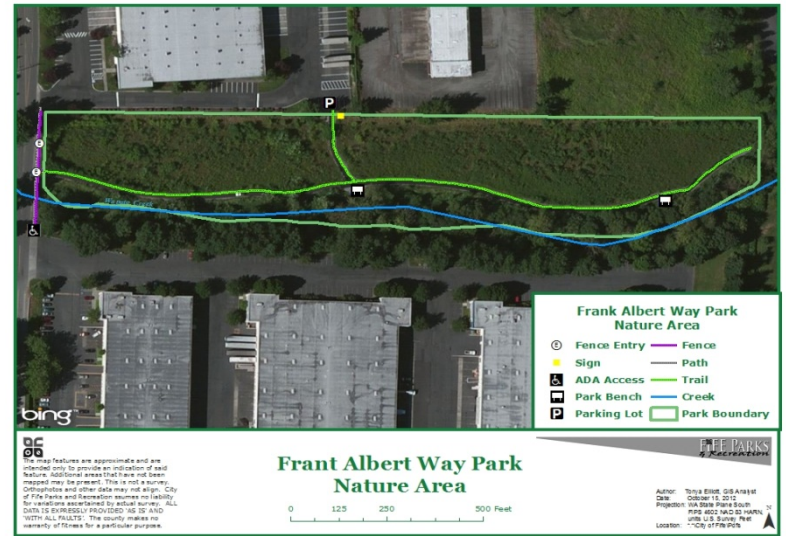
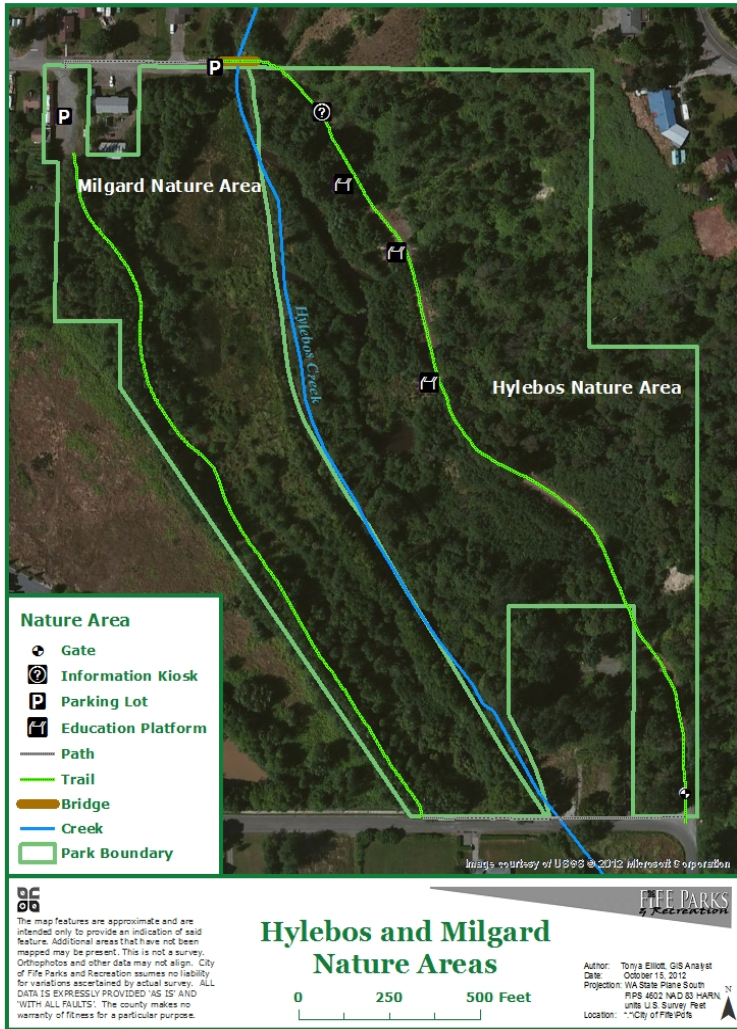
- No outdoor education program.
- No sustainability education on water sense, gardening, composting, etc.
- No youth outdoor education programs.
- No current utilization of nature areas and outdoor education facilities.

Analysis: Which parks and facilities can be utilized to teach the community about sustainability? What are asset management 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,

Community Education and Leadership - Outdoor Education Sites



Sustainable education and green leadership. Indoor education sites.



W a s t e r e d u c t i o n .

C u r r e n t E n v i r o n m e n t :

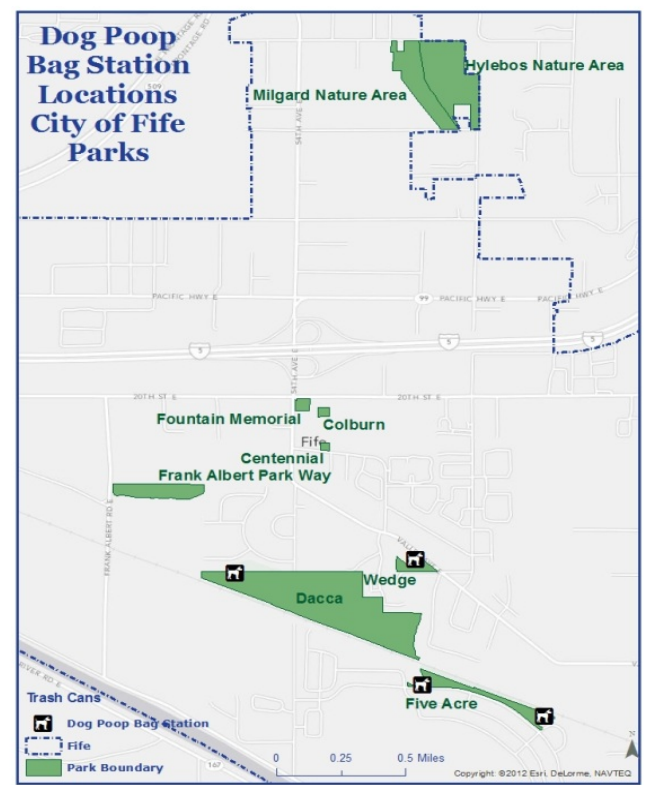
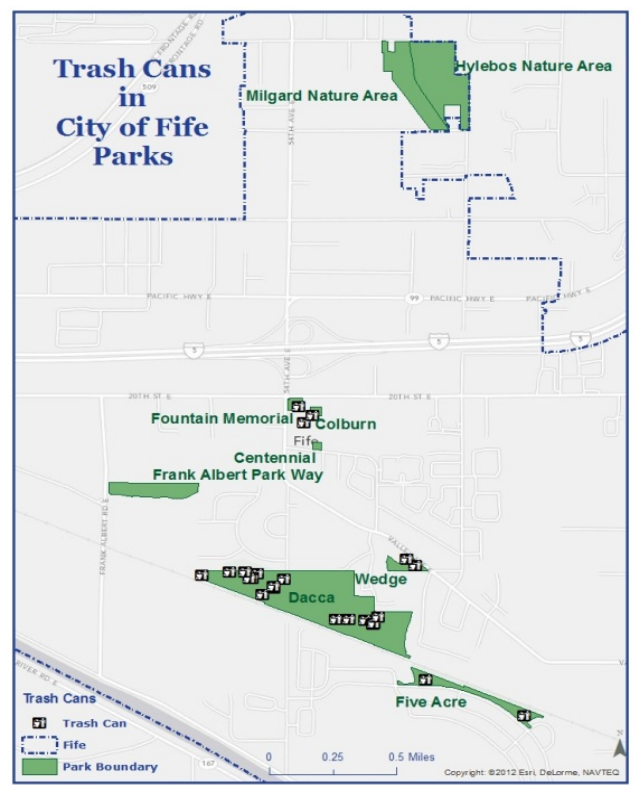
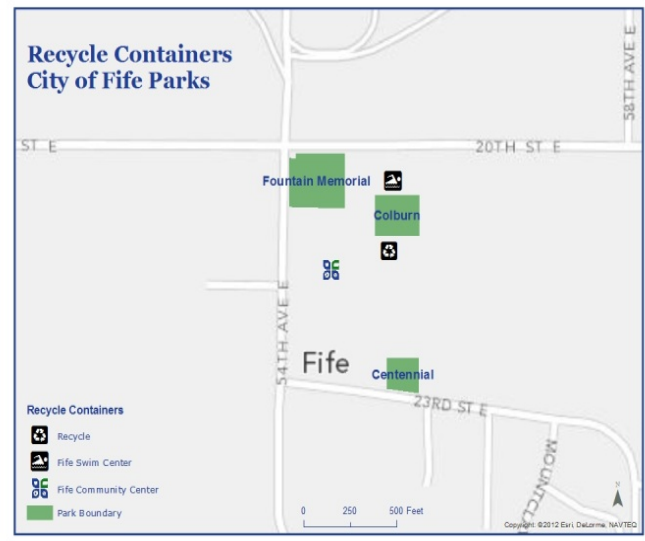
- O n e r e c y c l e c o n t a i n e r i n a l l o f t h e p a r k s .
- S o m e p a r k s a n d n a t u r e a r e a s d o n o t h a v e t r a s h c a n s o r r e c y c l e c o n t a i n e r s .
- N o c o m p o s t i n g f a c i l i t i e s .
- C O F d o e s r e c y c l e s c r a p m e t a l a n d e n e r g y e f f i c i e n t b u l b s .

A n a l y s i s : W h e r e a r e t h e r e e x i s t i n g f e a t u r e s t o r e d u c e w a s t e ? A r e t h e r e t r a s h c a n s , r e c y c l i n g c o n t a i n e r s , c o m p o s t i n g f a c i l i t i e s i n t h e p a r k s ?

R e c o m m e n d a t i o n s :

- I n s t a l l t r a s h c a n s i n p a r k s t h a t d o n o t h a v e t h e m .
- I n s t a l l r e c y c l e c o n t a i n e r s i n p a r k s t o p r o m o t e w a s t e r e d u c t i o n .
- I n s t a l l d o g p o o p b a g s t a t i o n s i n p a r k s t h a t d o n o t h a v e t h e m .
- H o s t e d u c a t i o n e v e n t s o n w a s t e

Waste reduction.



W a t e r c o n s e r v a t i o n .

C u r r e n t E n v i r o n m e n t :

- N e w i r r i g a t i o n s y s t e m s i n p a r k s w i t h r a i n s e n s o r s a n d t i m e r s .
- N o r a i n w a t e r h a r v e s t i n g .
- N o r a i n g a r d e n s b u i l t i n p a r k s .
- L o w f l o w t o i l e t s a n d a e r a t o r s i n r e s t r o o m f a c i l i t i e s a r e i n s t a l l e d .

A n a l y s i s : W h e r e a r e t h e r e e x i s t i n g f e a t u r e s t o r e d u c e w a t e r w a s t e ? A r e t h e r e r a i n w a t e r h a r v e s t i n g s y s t e m s i n p l a c e , c i s t e r n u t i l i z a t i o n , i r r i g a t i o n s y s t e m s , r a i n g a r d e n s , a n d u p d a t e d p l u m b i n g f i x t u r e s ?

R e c o m m e n d a t i o n s :

- I n s t a l l r a i n w a t e r h a r v e s t i n g s y s t e m s u t i l i z e d w i t h c i s t e r n s .
- B u i l d r a i n g a r d e n s i n p a r k s t o c o l l e c t s t o r m w a t e r r u n o f f .
- G P S i r r i g a t i o n s y s t e m f o r a s s e t i n v e n t o r y p u r p o s e s .

Water conservation.



W a l k a b i l i t y .

C u r r e n t E n v i r o n m e n t :

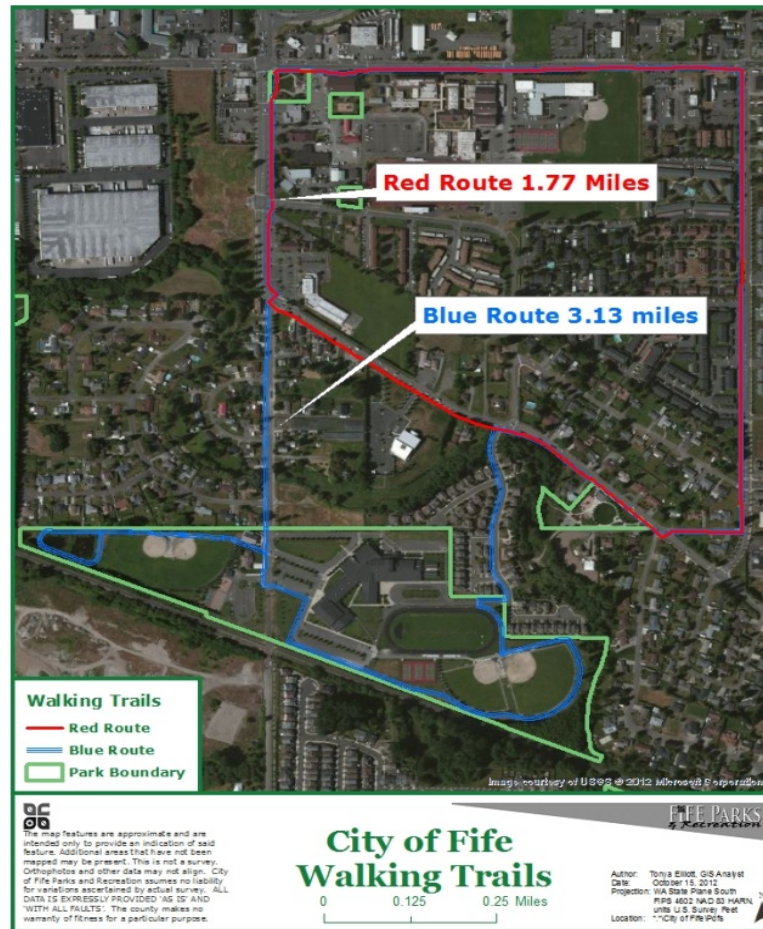
- T w o w a l k i n g r o u t e s e x i s t w i t h i n C O F .
- T r a i l s i n n a t u r e a r e a s a n d p a t h s i n p a r k s .

A n a l y s i s : W h e r e a r e t h e r e e x i s t i n g t r a i l s , p a t h s , a n d r o u t e s t h a t e n c o u r a g e w a l k a b i l i t y ? H o w c a n t h e s e r o u t e s b e i m p r o v e d ? W h e r e s h o u l d e m p h a s i s o f l a n d a c q u i s i t i o n b e t o e x p a n d g r e e n a n d b l u e s p a c e s ?

R e c o m m e n d a t i o n s :

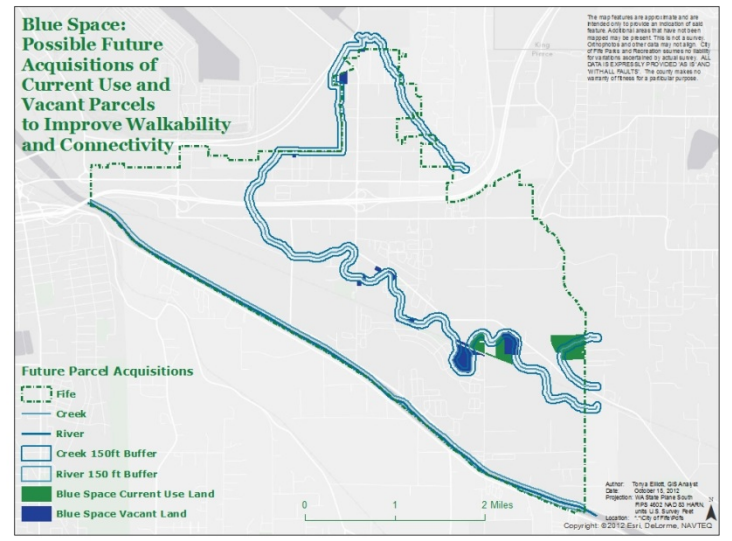
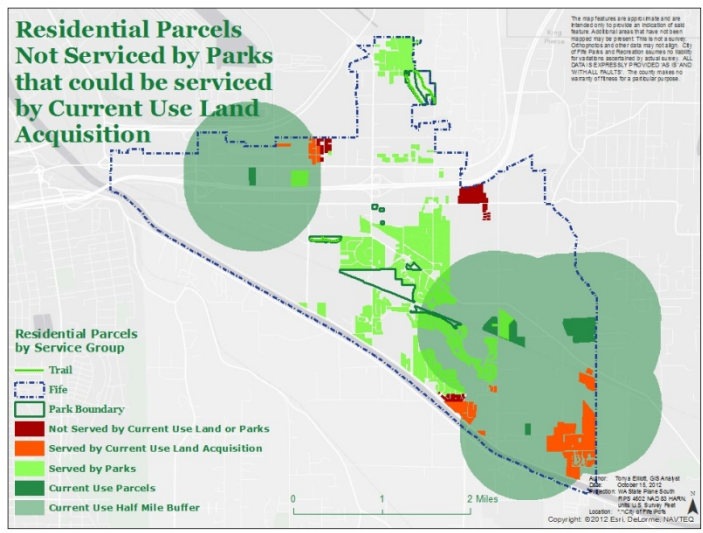
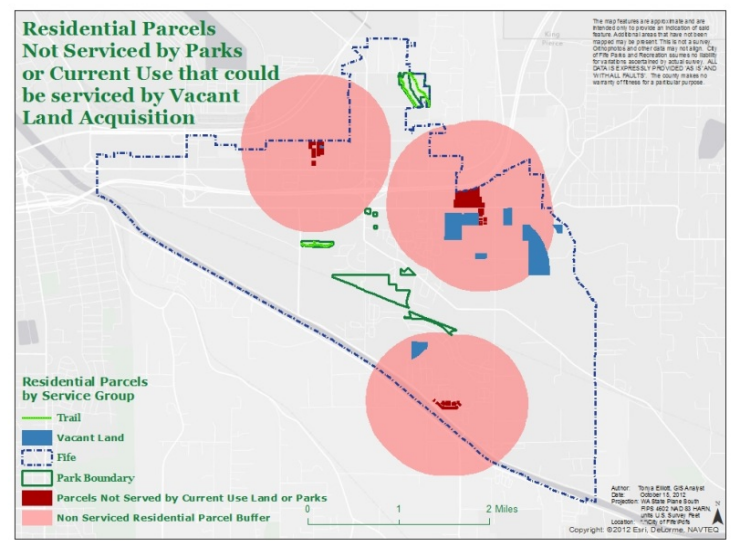
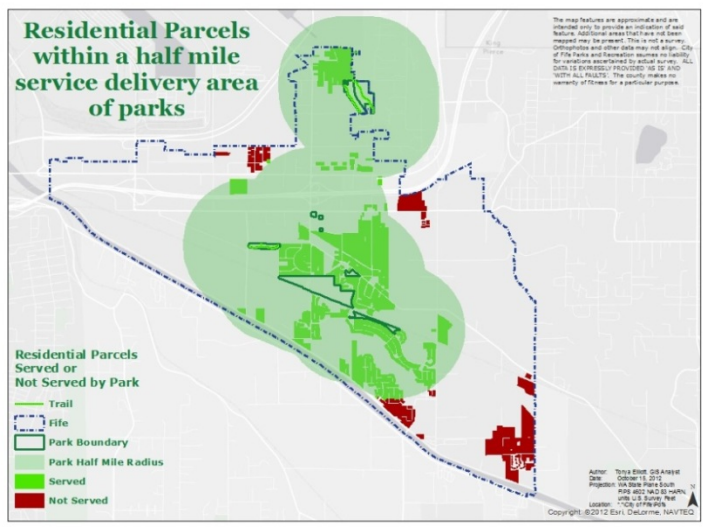
- R e - r o u t e t h e b l u e w a l k i n g p a t h .
- I n s t a l l p e d e s t r i a n c r o s s i n g s a n d l i g h t s o r r e - r o u t e r e d w a l k i n g p a t h .
- E x p l o r e f u t u r e g r e e n s p a c e l a n d a c q u i s i t i o n .
- E x p l o r e f u t u r e b l u e s p a c e l a n d a c q u i s i t i o n .

Walkability. Walking routes.



Water Availability.

Future current use and vacant land acquisition.



Greenhouse gases (GHG) emissions.

Current Environment:

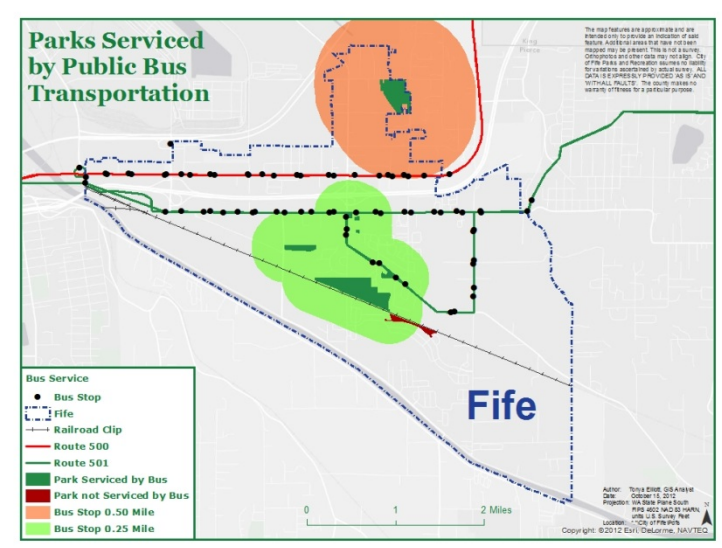
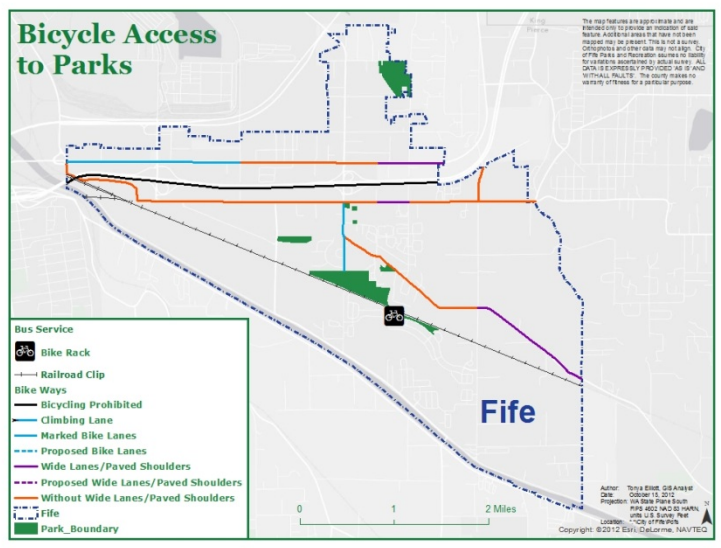
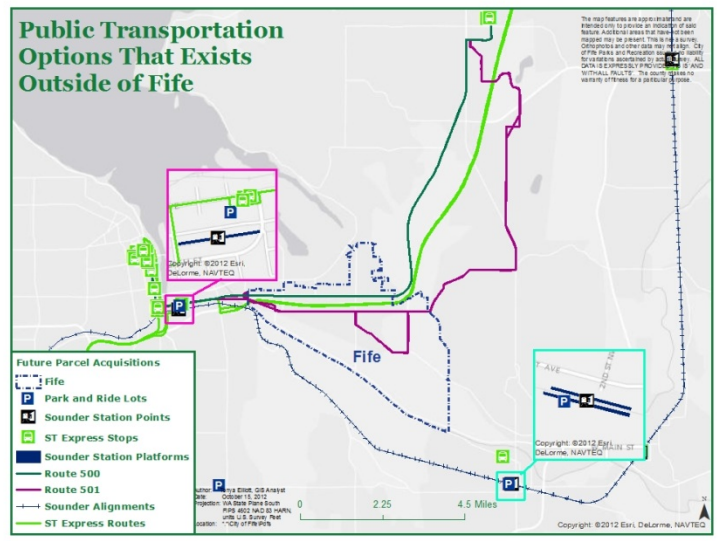
- No Sounder (train) public transportation in COF, no express bus route stops in COF, and no park and ride lots.
- Two local bus routes are present in COF. These routes connect to mass transit in Tacoma and Federal Way.
- Employees participate in commute trip reduction program. No Pierce Transit bus passes are offered to employees as a benefit.
- COF and PRC S 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 PRC S 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

Greenhouse gas (GHG) emissions.



Renewable energy.

Current Environment:

- No solar power in use at PRC S facilities or parks.
- No wind power in use at PRC S 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.

R e n e w a b l e e n e r g y .



Photo Source : p v - m a g a z i n e . c o . u o r m e : C i n c i n n a t i Z o o & B o t

C o n t a c t s a n d t h a n k y o u .



C o n t a c t :

GISTonya@gmail.com

T o n y a E l l i o t t

M S c G I S C a n d i d a t e

G I S C e r t i f i c a t e

B S F o r e s t r y

T h a n k y o u t o :

D e n i s e H a u g e n , G e o L i n e ,
I n c . T r i m b l e V e n d o r

A l e x a n d B i l l J o s e p h ,
a s s i s t e d i n G P S d a t a
c o l l e c t i o n .