#### **Friends of Starkweather Creek**







#### **Annual Activities**

#### FUN

- Clean ups
- Canoe tours
- Education
- Solstice Bonfires

#### SCIENCE

- Monitoring
- Engineering
- Testing



Confluence of East and West Branches



#### BOATS



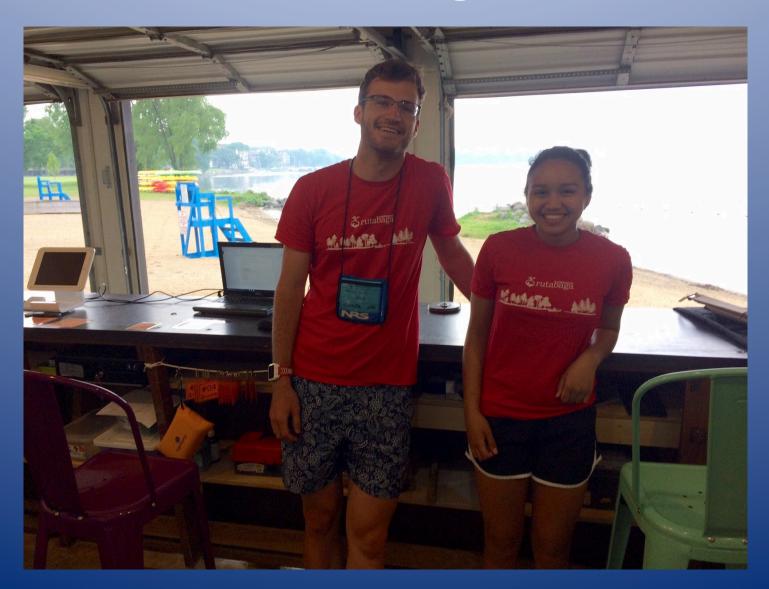
#### FRIENDS OF STARKWEATHER CREEK

#### Boats

- Go Fund Me
- Raised \$800 towards rent and construction
- Signed agreement March 17<sup>th</sup>
- Installed by April 29<sup>th</sup>
- 250+ tour attendees this summer



#### Rutabaga



# Family Night Goodman Center on March 9<sup>th</sup>



#### Earth Day Cleanup with Goodman Center April 22<sup>nd</sup>





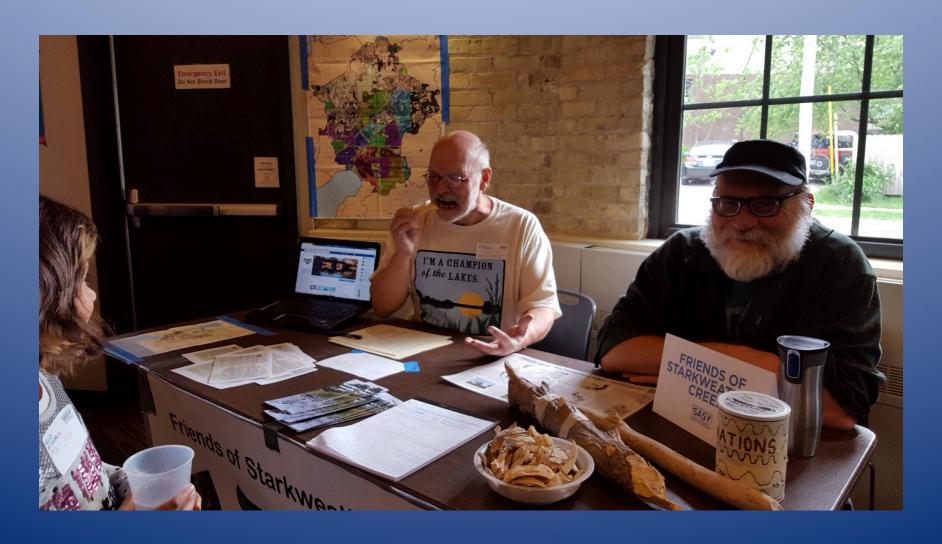
### Friends Clean Up April 29<sup>th</sup>







## May 19<sup>th</sup> SASY Table





#### Summer Solstice



















# Winter Solstice Join Us December 21st!





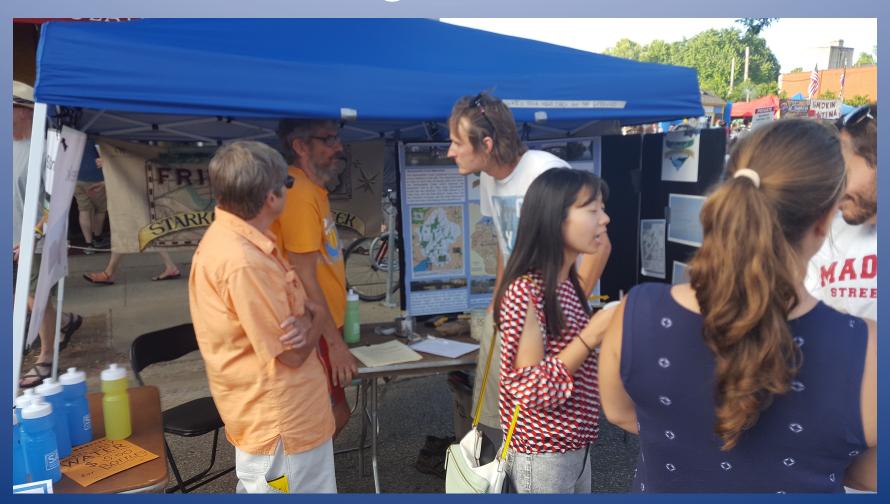
#### Education at Atwood Fest July 29-30





#### Eken Park Education August 19<sup>th</sup>





# Clean Lakes Alliance UW Madison Creek Tour May 9<sup>th</sup>









#### Invasive Plant Removal



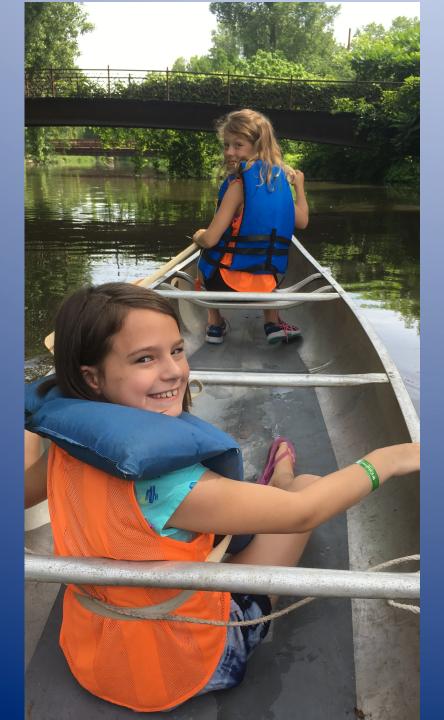




#### Goodman Summer Camp on Starkweather









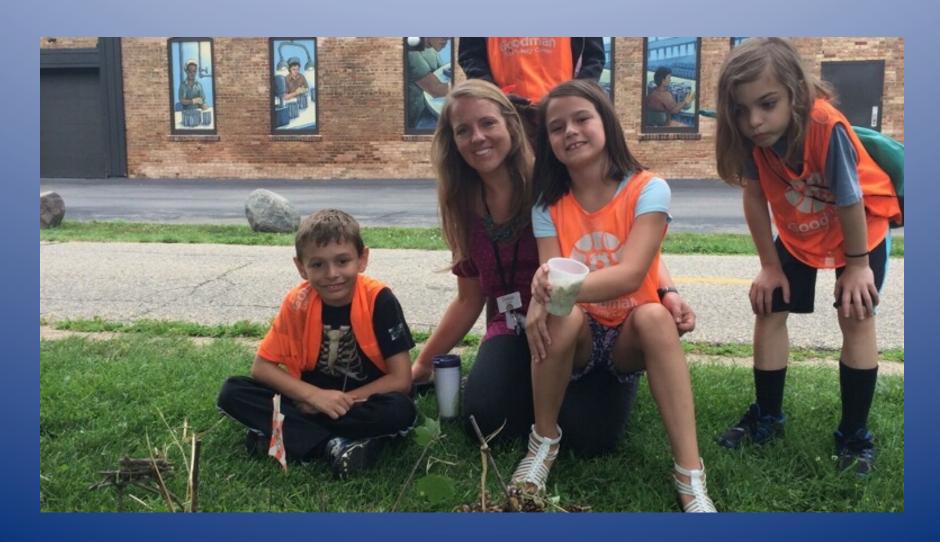
### Watershed Wanderers







## Planting









#### Canoeing





## Monitoring





## Clarity Reading





#### Boating







## Madison FUN Bird and Nature Walks





 Free, Familyfriendly Bird and Nature
 Outings



#### A FUN Approach to Nature Education for Families and Kids

Madison, Wisconsin is a national leader in getting Children in Nature.

Part of that success is FUN - Friends of Urban Nature, a coalition of Parks, Schools Environmental and Friends groups that co-sponsor regular opportunities for families and kids to enjoy Nature Recreation and Nature Education in nearby Natural Areas



#### Madison FUN Tours

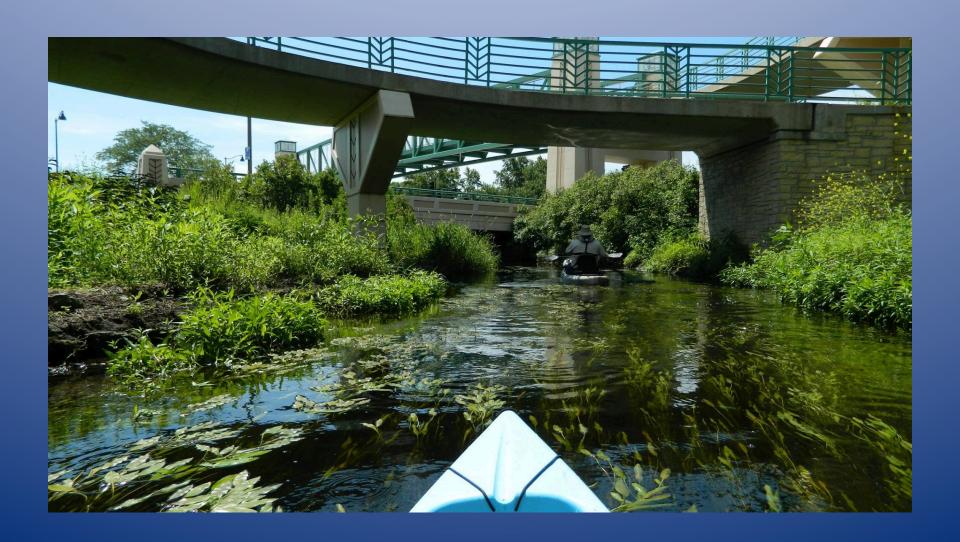






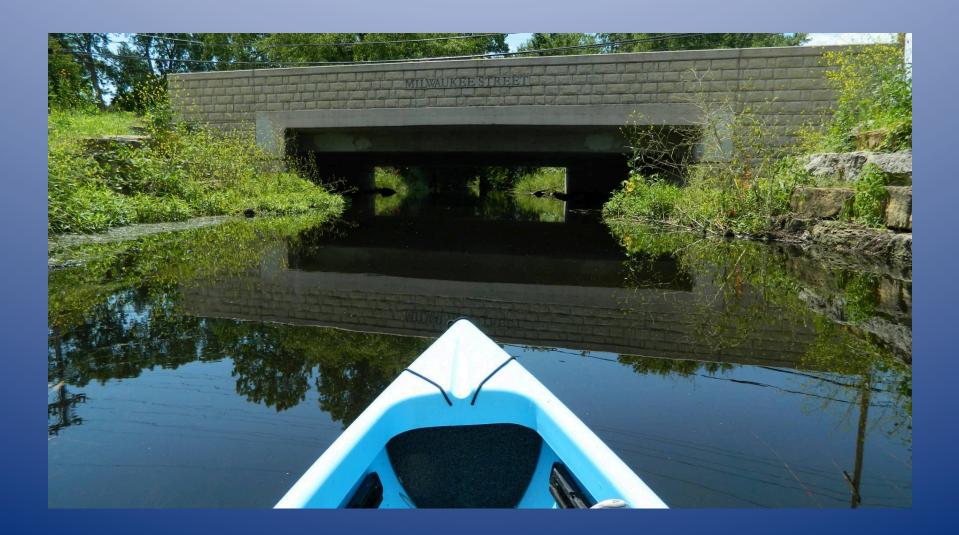


#### Fall Canoe Tour

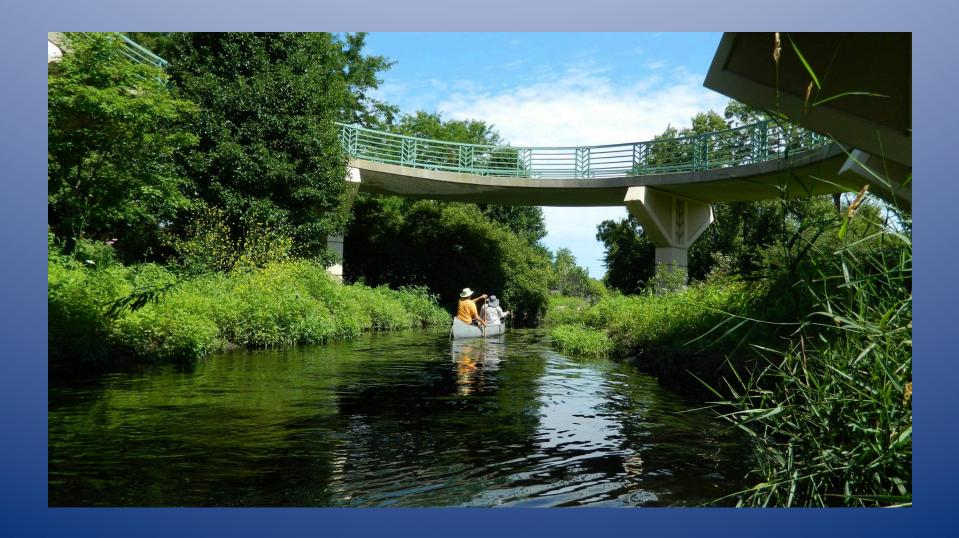


















### Helping the Creek Newsletter



Once you put salt down, it doesn't go away. It washes off surfaces and accumulates in local lakes, streams and drinking water. You can keep sidewalks and driveways safe this winter while protecting our waters by following these simple steps:



Clear walkways and other areas before the snow turns to ice. The more snow you remove manually, the less salt you will have to use and the more effective it will be.

### 2. Scatter 3. Switch





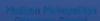
below 15 degrees, salt won't work. Switch to a different ice melter

#### Brought to you by the WI Salt Wise partnership:



















### Leaves! Rake them out of the street





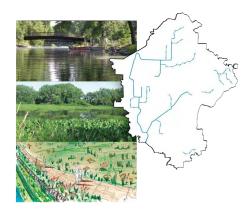


### Science on the Creek

#### Starkweather Creek Watershed:

Current Conditions and Improvement Strategies in an Urban Context

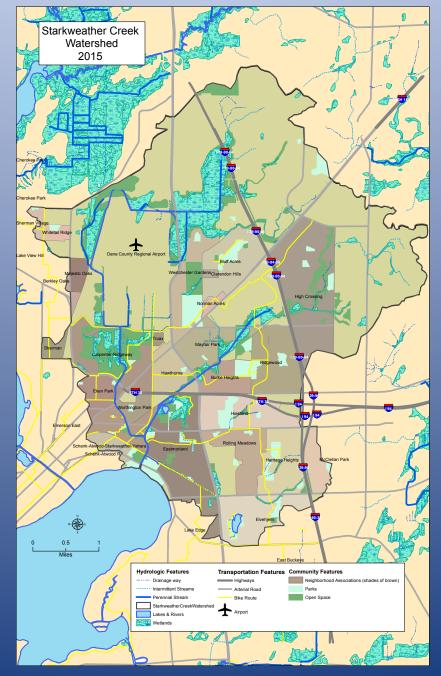
2006



Water Resources Management Practicum 2005 Nelson Institute for Environmental Studies University of Wisconsin–Madison

### Watershed

- 24 Square Miles
- Largest in Madison
- Two Branches
- Low baseflow
- Channelized, degraded wetlands
- 16,500 lbs P per year to Monona





## Starkweather Treatment System

### **Enhanced Phosphorus Removal from Stormwater**

- - One Approach to TMDL Compliance

August 4, 2015



Greg Fries, PE City of Madison Engineering Dept.

Jim Bachhuber, PH Brown and Caldwell Madison, WI





## Rain Garden Planting













## Native Plant Seeding



# Dane County Red Training and Canoe Trip on September 9<sup>th</sup>











# Update on Starkweather Treatment System



- Feasibility study for Starkweather Creek complete
- \$390 cost per pound of phosphorus per year
- Relocation order process for the land approved by Board of Public Works and the Common Council
- Process will take 6-12 months
- Board of Public Works considered an addendum to Brown and Caldwell's contract for about \$935,000.
   This addendum will cover, broadly, final design of the system and inspection services during construction.







## **DNR Sediment Testing**









### Sample Sites



Figure 1. Starkweather Creek Watershed sediment sample sites.



### Test Results

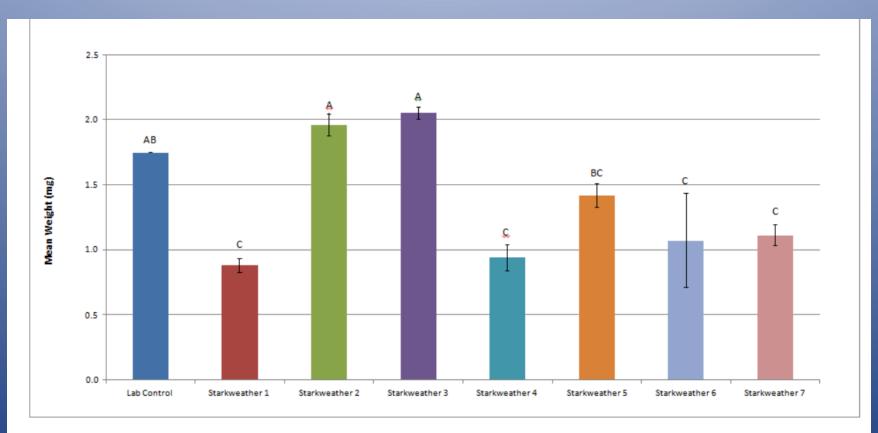


Figure 4. Ash-free dry weights of <u>Chironomus dilutus</u> exposed to laboratory control and Starkweather Creek sediment test samples. Histogram bars show standard errors. Histogram bars with the same letters above them do not have statistically-significant differences in organism survivorship.



# Creek Monitoring Study

FreshWater
Engineering
Laura Rozumalski,
P.E.

www.freshwatereng.com



### Study Conclusions

- Overall water quality has improved in all locations except "East Towne Mall" location
- Toxicity of concern in "Golf Course Ditch" location
- Improvement in "Airport" location but still an area of concern

## Creek Monitoring Measuring depth





# Creek Monitoring Measuring water speed/flow

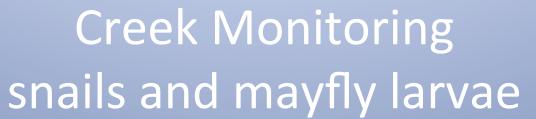




# Creek Monitoring invertebrate identification











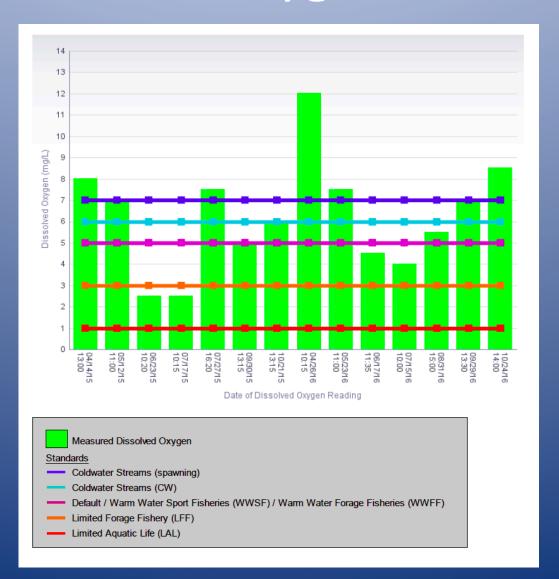
### Possible Future Project East Towne Drainage







### Dissolved Oxygen is low





## West Branch at Milwaukee St Bridge

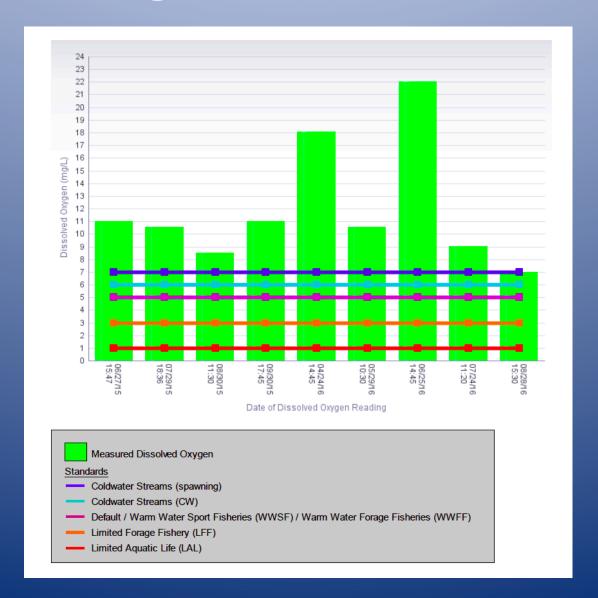
Instantaneous transparency minimum: 54 Instantaneous transparency maximum: 120 Instantaneous transparency mean: 99.44 Instantaneous transparency median: 115



Date of Transparency Reading



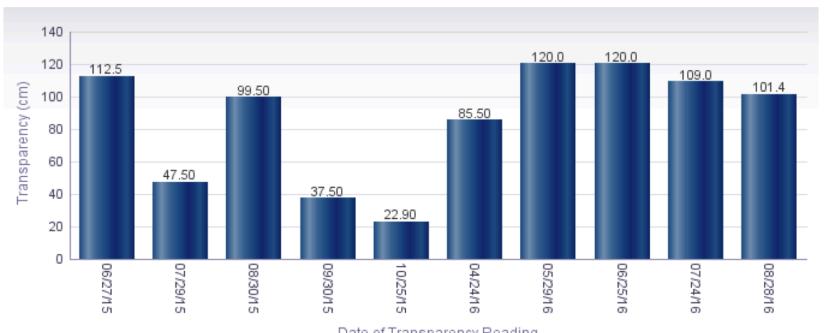
### Bridge at Olbrich Site





### Bridge at Olbrich Site

Instantaneous transparency minimum: 22.9 Instantaneous transparency maximum: 120 Instantaneous transparency mean: 85.59 Instantaneous transparency median: 100.475



Date of Transparency Reading



## What's up next year?



### Future Work Possibilities

#### **FUN**

- Connecting Kids with Nature
- MORE BOATS

#### **STEWARDSHIP**

- How much phosphorus is in the creek
- Working with the airport and golf course on sustainability practices
- Starkweather Treatment System
- Follow up on toxicity testing
- Creek navigability

### **COMMUNITY**

- Garver Redevelopment
- Darbo Worthington Planning native plantings, etc

### FRIENDS OF STARKWEATHER CREEK

INCOME	
MEMBERSHIPS	
19 memberships, including \$250 from City Engineering	742.00
OTHER INCOME	
GoFundMe and other donations for the canoe racks	444.00
funding from Goodman CC for canoe racks and programming	710.00
donations from attendees at AtwoodFest, Eken Park Festival	156.00
other donations	175.00
TOTAL:	\$2,227.00
EXPENSES	
ADMINISTRATIVE	
room fees and meeting expenses	188.00
website expenses	224.00
insurance premium	454.00
P.O. Box rental	90.00
annual state report filing fee	10.00
paypal transaction fees	16.00
printing	76.00
ACTIVITIES	
conference registrations	175.00
to city for 1/2 of cost for constructing canoe racks at Olbrich	500.00
2017 canoe storage rental fee	300.00
2017 AtwoodFest booth fee	165.00
TOTAL:	\$2,198.00
NET INCOME	29.00
ACCOUNT BALANCES	
CHECKING	739.50
	2,323.9
SAVINGS	0
	3,595.6
CDs	4
PAYPAL	456.73





### **Election of Officers**

### **Current Board**

- Dea Larsen Converse
- Lance Green
- Doug Johnson
- Carl Landsness
- Dave Pulkowski
- Dane Wudel\*
- Paul Noeldner\*
- Deborah Crabtree\*
- Theresa Vander Woude
- Sean Gere

### Re-election

- Dane Wudel
- Paul Noeldner
- Deborah Crabtree

### **Nominations**

Kris Long





# Enjoy the Creek!



http://starkweatherfriends.org/



https://www.facebook.com/ FriendsofStarkweatherCreek



