

SUNY College of Environmental Science and Forestry Bike Library Program

by

Drew Gamils  
Candidate for Bachelor of Science  
Environmental Studies

and

Frannie Monasterio  
Candidate for Bachelor of Science  
Environmental Studies

With Honors

April 2013

**APPROVED**

Thesis Project Advisor: \_\_\_\_\_  
Emanuel Carter

Second Reader: \_\_\_\_\_  
Theresa Selfa, Ph.D.

Honors Director: \_\_\_\_\_  
William M. Shields, Ph.D.

Date: \_\_\_\_\_

## **Abstract**

Many cities and universities around the world are considering bike share and bike library programs in their sustainability plans. In such programs bikes are made available for participants to check out from a designated location and use for an allocated amount of time. As seniors we realized how heavily we have relied on our bikes these past four years. Overall, biking is very popular on campus, and a program that allows students to check out bikes for very low costs allows our campus to implement sustainable practices and encourages biking. During this project we studied bike share programs in the United States and around the world. We researched aspects of bike share programs including size, costs, and overall benefits. Cities have reported benefits including improved fitness of residents, decreased CO<sub>2</sub> emissions, decreased need for vehicular parking, and increased pressure to improve bike infrastructure. In addition, this program offers a sustainable solution to some of the challenges ESF will face in the future such as parking constraints. In order to create a successful program at SUNY ESF we conducted surveys, made general observations about bike transportation, and talked to various administrators. In the end, we developed a bike library program to fit the needs and constraints of SUNY ESF. In doing so, we hope to increase accessibility and connectivity between the campus and other areas of interest such as grocery stores, cultural points, and the city. We expect our program to expand as ridership increases, spreading to the rest of university hill and beyond.

## **Contents**

Abstract .....	2
Acknowledgements .....	i
Introduction .....	1
Research and Methods.....	1
Case Studies .....	1
Survey and Survey Analysis .....	3
Field Observations .....	4
<i>General Observations:</i> .....	4
<i>Euclid Avenue</i> .....	4
<i>Comstock Avenue</i> .....	4
<i>Ostrom Avenue</i> .....	5
<i>University Place and Sims Drive</i> .....	5
<i>Waverly Avenue</i> .....	5
<i>Walnut Place</i> .....	6
<i>University Avenue</i> .....	6
<i>Marshall Street</i> .....	6
<i>Irving Avenue</i> .....	6
<i>Conclusion</i> .....	6
Logistics and Stakeholder Involvement .....	7
Initial Investment and Funding .....	7
Plan of Action .....	8
Implications and Future Expansion .....	9

Appendices .....	10
Waiver.....	10
Survey .....	13
Survey Summary.....	16
Campus Map .....	19
Knothole Articles .....	20
Contacts .....	22
References.....	23

## **Acknowledgements**

We would like to thank Professor Emanuel Carter for his continuous advising in the project. We would also like to thank Dr. Melissa Fierke for heading the Bike Library Committee. Thank you to those who provided us with financial support, including the Green Campus Initiative, the Climate Change Committee, and the Honors Program.

## **Introduction**

A bike library program (BLP) is one in which bikes are made available for individuals to use, but not to own. Bikes are kept in one or several central, secured storage location(s) until checked out. Individuals who participate in the program, known as Members, can access bikes from a designated check-in station and return the bikes to the same location 24 hours later. Bikes are locked at the designated station and monitored by an attendee. The attendee is in charge of the bikes and provides the Member with a labeled key to release the corresponding bike from the lock. The goal of this project is to develop a bike library program (BLP) for SUNY ESF that will inspire an extensive, program available to people on University Hill, and eventually throughout the city of Syracuse.

Ongoing campus expansion has and will continue to remove on-campus parking availability. An on-campus BLP would greatly benefit the campus in this respect. If successful, the BLP could supplant a certain amount of vehicle usage with bike usage, allowing a decrease in the need to accommodate vehicles with parking spaces. Additional benefits of a BLP and increased bike ridership include decreased traffic congestion on and around campus, increased on-campus employment, decreased CO<sub>2</sub> emissions associated with commuting to and from campus, and improved health for riders. Even if individuals have their own bikes, the BLP is beneficial because it reduces rider concern for vandalism, bike maintenance, and bike theft. Students will have an alternative means of transportation to get to downtown Syracuse, Westcott Street, Marshall Street, and many other nearby locations. Overall, this program will create a cleaner, more positive university image that can draw people to our college.

## **Research and Methods**

### **Case Studies**

Montreal and Toronto, Canada both use the Bixi Bike System. Montreal's system was opened to the public in 2009. The city spent \$13 million developing this bike-sharing program and creating multiple solar powered bike stations. At each station participants can pay at an automated machine, take a bike, ride it, and return it at any station in the network. Today the system has 5,120 bikes among 411 stations in the downtown area. The city's parking authority is in charge of the operation of Bixi (Bixi, 2012). Each station is run by solar power and does not require any preparation work, and the stations can be easily installed as more are needed. In addition, they are portable and can be removed in the winter. Users of the Bixi bike

share program can pay an annual subscription of 78 Canadian dollars, this provides them with a chip-encoded plastic fob that allows individuals to release the bikes (CBC, 2012). On the other hand, day users can pay 5 Canadian dollars using a credit card. Each day user gets a \$250 security hold on their credit card. The first half hour is free, the second half hour is 1.50, and after two hours the 30 minute rate is \$6.00. The frames of the bikes in the Bixi system are designed with aluminum, a strong and durable material suited to Canadian weather, to minimize maintenance. Each bike includes a fender with a skirt guard, a chain guard, LED headlights, tail lights (powered by front hub dynamo), 3 speed gear, and effective drum brakes, kickstand, and a bell. Toronto, Canada also uses Bixi bike sharing system, including solar stations and payment methods. Their program was launched May 3, 2011. This system contains 80 stations and 1,000 bikes. As a member of the Bixi bike share program one can take out a bike for 24 or 72 hours. There is a \$95 (Canadian) per year subscription and a \$40 (Canadian) 30 day subscription. However, casual users can pay a \$12 (Canadian) 72-hour fee, or a \$5 (Canadian) 24 hour fee (<https://toronto.bixi.com/>). There are no additional fees for trips of 30 minutes or less. Bixi is also established in Ottawa with 100 bikes and 10 stations, and London with 9,200 bikes and 687 stations (Frattini, 2011).

Vitoria- Gasteiz, capital of the Basque Autonomous Region of Spain, launched their Public Bike System in 2009. The city offers 350 bicycles free of charge, with 17 pickup points. The city also has a Bicycle Mobility Master Plan that includes continually adding new cycling paths. When the program began 1.84 users were reported per bike per day. One year later, city bike trips were reported to increase 50%, and in 2011, 5006 subscribers were registered in the program. Since 2009, 4 additional dispatch points and 50 additional bicycles were added to the bike share system. Overall, trips made with city bikes increased 64%, with 4.59 bike uses per day. This increase in usage demonstrates the success of the Vitoria- Gasteiz bike share. Vitoria Gasteiz was the European Green Capital for 2012.

In the United States, Boston, Massachusetts was the first city to use the Bixi Bike Share System. This system began in 2011, with 61 stations and 610 bikes, and is sponsored by New Balance. In Portland, Oregon Bikes are checked out at a nearby self-service check out station using a membership card or credit/debit card. A bike can be rented for five to seven dollars a day or one can purchase a yearlong membership for \$50 to \$80 (The City of Portland, <http://www.portlandoregon.gov/transportation/article/387784>). The program in Portland, Oregon is

paid for through federal transportation funds, grant awards, private sector vendors, private sponsorships and revenue, and user fees. The bike storage, checkout, and return all occur at the station. Stations contain bike docks which release and lock the bikes at the beginning and end of each use session.

The Washington State University launched their program in 2010, with 4 stations and 32 bikes. During the first season 2,906 trips were made. The system is operated in conjunction with a variety of campus facilities and the Well-Being Department. For the fall semester of 2011, an expansion was planned for two additional stations and 22 additional bikes. The WSU program covers 640 acres of land and services 18,234 students. Students are able to retrieve bikes using their student ID cards.

SUNY Albany runs a bike library program similar to the one planned for SUNY ESF. The University at Albany launched their program with donated bikes and a small grant to buy bikes, but the program experienced the most success when the school purchased new bikes, paid for by Resident Life. The program now consists of 25 Raleigh venture bikes, each tagged and registered with the police department. There are eight renter locations, each under the supervision of Resident Life. The storage and check out location for the bikes is part of the quad office, where students go to sign out items such as paddles and ping pong balls. Once the students sign out the bike and show their ID cards they then receive the key to unlock the bike. The resident assistant who checks out the bike is required to share bike tips and offer a helmet to the rider. The program is free and students are lent the bikes for 24 hours. Overall, usage is tracked using collection logs and develop report at the end of each semester. As a result of the success of the SUNY Albany program the City of Albany is now doing an assessment to put in a Bike Share Program Complement to the existing bike library program (Mallia, Mary 2012).

## **Survey and Survey Analysis**

On November 26, the authors sent out a survey, titled the Future of a Bike Share Program at ESF, to determine interest and applicability of the bike library program to the campus community, about 600 surveys were sent out (see Survey and Survey Summary in the Appendix). Responses were accepted for about three weeks. In the end 200 survey responses were response. About one-third of the campus community responded to the survey.

Results indicate that over 50% of survey respondents indicated that they would participate in the BLP. The second largest response shows a number of students would not participate because they have

their own bike - a testament to the campus community's current ridership. Results also indicate relatively high frequency of bicycle commuting with two thirds of the community biking four or more times per week. An extended summary of the survey results can be found in the Appendix.

## **Field Observations**

On October 8, 2012 from 9:30am to 11am the authors made observations on several streets to record the number of bicyclists, pedestrians, and motorcycles on the road. The authors choose the hour and half time slot because many commute to the university at this time. The object was to observe the popularity of bicycling and make note of the conditions cyclists faced during this rush hour time. From October 8<sup>th</sup> to November 8<sup>th</sup>, the authors continued to make first hand observations at 9:30am by commuting to SUNY ESF via bicycles.

### *General Observations:*

In an hour and a half there were over 30 bicyclists, 50 walkers, 2 motorcyclists, and 5 runners. The commuting population consisted of professors, undergraduates, and graduate students. The weather was cold, but the sun was out, and there was heavy traffic at all locations. On this day, as is common on most days, bike parking on the ESF campus was everywhere including trees, signs, and fences. The following streets were observed: Euclid, Comstock, University Place, Ostrom, Waverly Ave, Walnut Place, University Ave, Marshall Street, and Irving.

### *Euclid Avenue*

There was little to any separation between cyclists and walkers. Cars are often parked in the bike lane on at least one side of the street, and in many locations cars are parked on both sides of the street. Busses and trucks take up most of the road, this was and continues to be a safety issue for bicyclists trying to share the space. Additionally, sidewalks feature uneven surfaces in many areas. These uneven sidewalks are dangerous to pedestrians and runners. However, the street lighting is good improving pedestrian safety at night (multiple street lights posted each block). Euclid Avenue contains traffic lights at the busy intersections to ensure pedestrian safety. These lights are located on Westcott Street, Lancaster Avenue, Ostrom Avenue, and Comstock Avenue.

### *Comstock Avenue*

The stretch of Comstock Avenue between Euclid Avenue and East Colvin has a small bike lane represented by a simple white line. The stretch of Comstock between Euclid Avenue and Waverly Avenue has no bike lane. Overall Comstock has a heavy traffic flow and the lack of a bike lane makes this street dangerous to bicyclists. This stretch of Comstock is the regular route of all Metro buses heading to the College Place bus stop or the Shine Student Union Bus Stop. The sidewalks are good along the entire road with plenty of room for pedestrians. However, there is a dangerous crosswalk in the middle of Comstock that many students take (across from the Shaw Dining Center and Life Science Building). There is a designated crossing area with no light, stop sign, or even a pedestrian crossing sign, the cross walk is simply painted on the pavement. This area is known for multiple accidents (Daily Orange and Syracuse Post Standard).

### *Ostrom Avenue*

Ostrom Avenue does not have a bike lane in any form. In addition, there are poor sidewalks that are not appropriate to bike on. This street has heavy traffic and sidewalks that are uneven and cracked, a danger to both pedestrians and bikers. This street forms the west boundary of Thorden Park but the street has little connection with the park, separated by a thick tree line and poor lighting at night. However, a benefit is that Ostrom Avenue does not have any parking on either side of the street.

### *University Place and Sims Drive*

These locations are the entrances to SU and ESF off of Euclid Avenue. Both entrances contain wide, even sidewalks, but lack an appropriate bike lane. These are high congestion areas, with busses, trucks, cars, and many pedestrians flowing into each place. Bicyclists must be careful and many times hinder the flow of traffic, especially on Sims Drive. Throughout the month, it was observed that the majority of bicyclists, commuting via University Place and Sims Drive fail to obey traffic laws, specifically fail to stop at the designated stop signs.

### *Waverly Avenue*

There is no bike lane on Waverly Avenue. The street has heavy traffic, but the sidewalks are even and wide. In addition, the street has lots of traffic lights, pedestrian crosswalks, and great street lighting. There are several lampposts on each block and traffic lights and crosswalks located on the intersections of Waverly Avenue and Comstock Avenue, Walnut Place, University Avenue, and South Crouse Avenue.

Both Bird Library and the Shine Student Center are located on Waverly Avenue, it is also the connection to Marshall Street.

### *Walnut Place*

There is no bike lane, and there is lots of parking on both sides of the street. The sidewalks are poor, and bicyclists are forced to ride in the middle of the road. However, Walnut Place is a one way street that allows a little more safety for bikers. There is also ample amount of green space in the middle of both one way streets used for recreation and pedestrian travels. Potentially this is an area that can be made into a bikeway/ pedestrian.

### *University Avenue*

University Avenue is a great example of a bikeable street. This street contains beautiful sidewalks, great street lighting, and a perfect bike lane. The bike lane is separated from vehicular traffic by a cement barrier and contains a two way traffic flow green path with arrows that indicate the direction bicyclists should ride. Additionally, pedestrians have a separate pedestrian only sidewalk.

### *Marshall Street*

Marshall Street has good sidewalks, and one way traffic flow. However, we observed poor quality bike racks outside Marshall Square Mall, and overall limited bike parking in a truly bikeable area. There is also a lot of vehicular parking on Marshall Street.

### *Irving Avenue*

Irving Avenue is an extremely dangerous street to bike on, with heavy traffic, parking on both sides of the street, no designated bike lanes, and very narrow sidewalks. This street connects to four dorms, an Upstate Medical University, and Course Hospital, and as a result should be expected to have safer bike and walkways. There is potential to expand biking on Irving Avenue by eliminating some street parking. Efforts to improve pedestrian safety are being made, such efforts include two crosswalk signs in front of Crouse Hospital. However, we feel the signs are a not the best means of promoting safety. Additionally, this area contains a lot of construction, and busses and trucks pass by consistently.

### *Conclusion*

Through these observations, it is clear that while bicycling is a popular form of commuting it is also dangerous. To create a BLP it is also critical to promote bike safety and encourage the development of new bike infrastructure, especially on Comstock Avenue, Euclid Avenue, University Place and Sims Drive. While the program the goal is to implement a bike library system, observations related to sidewalks are important when considering what possible bike infrastructure to use in an area, and it is also important to be aware of pedestrian safety. There are many areas where there is very little separation between bicyclists and vehicles, dangers are especially prominent between Centro buses, pedestrians, and bicyclists. It is important that bicyclists follow traffic laws and bike safety protocol, but it is also important to create bikeable streets. The authors will incorporate bicycle safety into their program by hosting events on bike safety and bike maintenance, working with University Police, and supplying SUNY ESF student with a bicycle handbook and registration form.

### **Logistics and Stakeholder Involvement**

Several parties were involved in the creation of a BLP in order to reduce risk and ensure ease of access to the BLP for the students. We drafted the initial plan for funding with Professor Carter. Vice President Joseph Rufo provided input for the paperwork and liability concerns. The Physical Plant Department was contacted to determine the best placement for the bike rack according to building code and enforcement. We worked with Mr. Steven Weiter, Director of Moon Library, to create a check out process for the bikes. The Business Office was consulted in order to create the account necessary to accrue dues and associated charges of the program. University Police was contacted for suggestions about bike safety and to provide a temporary home for the bikes. Dean Lombard of Student Life provided guidance on how to work with the Undergraduate Student Association to establish a committee and ensure future success. The Bike Safety Committee at ESF and Dr. Melissa Fierke provided additional input where necessary.

### **Initial Investment and Funding**

Working in conjunction with Mello Velo, the price per bike is \$456. The recommended bike to use for the bike library program is the Kona AfricaBike 3 featuring amenities such as a three-speed internal hub, a basket, and a durable, walkthrough frame that allows for easy mounting. We have started the SUNY ESF BLP with five bikes (\$456/each), U-Locks (\$25/each), and generator bike lights (\$20/each) costing about \$2,500. Additional money will be used for contracting a maintenance deal with Mello Velo,

anti-theft installations, a gel injection that makes the tires puncture resistant, and helmets. Leftover funds will be put aside for problems that may have been overlooked during the initial launch.

We propose that Membership dues are paid when Members submit or renew the Waiver of Liability and User's Agreement (paperwork). The Membership dues will begin in the fall of 2013 and will be \$20 per academic year. Each year, Members will receive a different colored sticker upon paperwork submission. Members will be charged \$15 a day for each day past the check-in date. After ten (10) days the Member will be charged \$500 for the bike. If the bike is stolen, Members must immediately file a claim and Bike Committee members will send an alert email to the student body. We are currently investigating the ability to place registration holds on students in the event that the bike is not returned.

Funding sources for the pilot program included the Green Campus Initiative Sustainability Fund, the ESF Honors Program, and the Gifford Foundation. After speaking with the Alumni Association, we hope to create an ongoing category of alumni giving to support and expand the program in the future. Alumni funds would go towards the expansion of the bike fleet, maintenance costs, additional bike racks, and indoor/protected bike storage. Organizations such as the Gifford Foundation and Central New York Communities Foundation, Inc. have shown interest in future investment in the program.

## **Plan of Action**

The bikes will be stationed on the South entry of Moon Library with keys available for check out. From April 25th 2013 until Graduation, students with a valid ESF ID card must first fill out and submit a User's Agreement, a Waiver of Liability, and a \$20 refundable deposit to Laura Crandall in the Student Life Office in Bray Hall. Students who fill out and submit the paperwork will receive a red sticker on their ID that will allow them to check out a bike from the University Police Office (UPO) during this trial period. Students will be responsible for filing documentation with identifying information, such as name, student ID, and time checked out from the UPO.

Beginning in the 2013 fall semester, Members will be able to check out the bikes from Moon Library in a manner similar to checking out books. Paperwork and Membership dues will be submitted to the library circulation desk. Library employees will then place a sticker on the IDs and provide Members with a key to the bike lock.

If the bike is stolen, Members must immediately file a claim and Bike Committee members will send an alert email to the student body.

We began a BLP Committee consisting of 3 to 6 students to continue the project following our graduation. They will be responsible for checking on the bikes, maintaining the program, tending to bike maintenance needs, and contacting Mello Velo when extensive repairs or additional help is necessary.

### **Implications and Future Expansion**

We hope that the BLP, though small, will serve as a model for the rest of the city. Though several options opened to create a bigger program, we expect the first year to reveal one or more problems we were unable to address during the initial project. Beyond addressing air quality and parking issues, a successful, campus-wide BLP gives people without vehicles (or people wishing to reduce vehicle use) increased accessibility to distant from campus and its immediate surroundings. Increased interest and ridership in the BLP can justify investment in safer bike infrastructure - a clear weakness and challenge bicyclists must face. With the support of the alumni and various stakeholders both on and off campus, the BLP has the potential to grow and expand to the rest of University Hill and eventually throughout the City of Syracuse.

**Appendices**

**Sample Waiver of Liability**

WAIVER OF LIABILITY  
SUNY College of Environmental Science and Forestry Bike Library Program

Student Name: _____ ID# _____ Date: _____	Student Cell Phone: _____ Emergency Contact: _____ Emergency Contact Phone: _____
---	---

1. I understand that I will be bound by the terms, conditions, rules and regulations set forth in this waiver.
2. I, the undersigned, wish to participate in activities associated with the State University of New York College of Environmental Science and Forestry (SUNY ESF) Bike-Sharing Library program. I shall assume all responsibility for my actions and follow common sense rules of safety which include, but are not limited to, following New York State laws, wearing a helmet, and locking the bike.
3. I hereby acknowledge and understand that SUNY ESF neither accepts nor assumes responsibility for any participant’s welfare, for acts or omissions, or for any injuries, claims or losses arising from those acts or omissions. SUNY ESF gives no assurances or warranties as to the safety of the equipment.
4. I understand that I will be responsible for inspecting any bicycles prior to usage to determine if there are any maintenance or safety concerns, and if maintenance or safety issues arise during my usage I shall immediately cease usage of the bike and report the maintenance concern to appropriate personnel. I understand that I am responsible for damage to the bicycle other than normal wear-and-tear, and will be held liable for excessive damage.
5. I will not loan my key or bike to any person.
6. I understand that helmets are not required for riders over 14 in New York. Nevertheless, I also understand that helmets are the best protection against serious injury from bicycle accidents. **I understand that failure to wear a helmet exposes me to serious injury or death in the event of a bicycle accident and I accept full responsibility for such injuries.**
7. I recognize the importance of following all city, state, and federal laws and regulations regarding the operation of bicycles, including, but not limited to, traffic laws and rules. I assume all responsibility for any charges and violations, and resulting fines and penalties, which may result from my inappropriate operation of a bicycle.
8. I acknowledge that I am in good physical condition and do not know of any condition or reason that I should not be able to safely operate one of the bicycles provided through the Bike-Sharing Library program at SUNY ESF.
9. I, along with my administrators, executors, heirs and assigns, further agree to indemnify, release and hold SUNY ESF, its Trustees, officers, employees, agents and volunteers harmless from all expenses, losses, claims and causes of action in connection with any personal injury, accident, damage, claims, costs, expenses or other loss suffered or incurred by me arising out of my participation in this program. I further agree to defend, indemnify and hold the SUNY ESF, its Trustees, officers, employees, agents, and volunteers harmless from all damages, liabilities and

expenses (including reasonable attorneys' fees and costs) arising out of or as a result of claims against the State of New York and/or SUNY ESF by third parties relating to my participation in this program.

**10.** I understand that biking in general is an inherently dangerous activity and that bicycle accidents can and do result in injury, serious physical injury and even loss of life. As a condition of being allowed to utilize a bike, I hereby hold the State of New York and SUNY ESF and all trustees, officers, employees, agents, volunteers and associated personnel and entities harmless and not liable for claims of injury, loss or damage to personal equipment, or death. I freely accept and voluntarily assume the risks of personal injury or property damage that may result from this potentially hazardous activity. I fully understand and agree to the above conditions and regulations.

**11.** This waiver applies, and is otherwise in full force and effect, to every bike share from April 25, 2013 through May 12, 2013.

Signature: \_\_\_\_\_  
Print Name: \_\_\_\_\_

## Sample User's Agreement

### ESF Bike Library User's Agreement

Please read carefully before signing:

1. I understand that biking in general is an inherently dangerous activity and that bicycle accidents can and do result in injury, serious physical injury and even loss of life. I take total responsibility for my safety and assume the risk of any injury that may result from the use of equipment. As a condition of being allowed to utilize a bike, I hereby hold the State of New York, the State University of New York College of Environmental Science and Forestry (SUNY ESF), and all trustees, officers, employees, agents, volunteers and associated personnel and entities harmless and not liable for claims of injury, loss or damage to personal equipment, or death. I freely accept and voluntarily assume the risks of personal injury or property damage that may result from this potentially hazardous activity.

2. In consideration of being allowed to ride the bicycle, and before riding or using the same, I state and acknowledge that I am not intoxicated (includes any drugs or prescriptions) and do not have any physical disorder that would interfere with the safe operation of the bicycle at any time during the checkout.

3. The equipment, at all times, remains the exclusive property of the Bike Committee and SUNY ESF. I agree to the 24 hour rental period. If after 24 hours, I fail to return the bike I agree to pay \$15 a day. If I fail to return the bike after 10 days I agree to pay the full cost of the bike and its associated fees (e.g., transportation), \$500.

4. In order to participate in the Bike-Sharing Library program, I understand that I must have a valid student ID with the designated sticker indicating that I have signed this Renter's Agreement and the Waiver.

Initial here \_\_\_\_\_ I hereby accept the terms of this contract. This document constitutes the final and entire agreement between the Bike Committee, SUNY ESF, and the undersigned.

Initial here \_\_\_\_\_ I have carefully read this agreement and release of liability and fully understand its contents. I am aware that this is a release of liability and a contract between myself, the Bike Committee, SUNY ESF and I sign it of my own free will.

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

## Survey

### The Future of a Bike Sharing Program at ESF

Frannie Monasterio and Drew Gamils are working under Professor Emanuel Carter to develop a plan for a bike share program at ESF. A bike sharing program is a program in which bikes are made available to individuals to share, but not to own. Individuals who participate in the program access bikes from a designated station. The plan involves multiple stations set up throughout the university area in order to be convenient to on campus residents and off campus commuters. All bikes that are part of the program can be returned and rented from any one of the designated stations. There are many possibilities to the program design, please fill out the survey to ensure that the plans are designed to keep in mind the needs of the ESF community.

\* Required

Does weather influence your biking?

- Yes, weather impacts my decision to bike  
 No, I bike no matter what the weather

Would you be interested in taking part in a bike sharing program on campus? \*

- Yes  
 No, I have my own bike  
 No, due to dangerous biking conditions  
 Other: \_\_\_\_\_

When and how frequently would you bike? Choose all that apply

	0-3 times per week	4-7 times per week	8-10 times per week	More than 10 time per week
Fall Semester	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Spring Semester	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Summer Semester	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

If yes, under what weather conditions will you ride? Choose all that apply

- Good Weather  
 Light Rain  
 Heavy Rain  
 Snow Flurries  
 Snow Storm

Would you use the bike for purposes outside of commuting to and from ESF?

- Yes  
 No

In your opinion, where is the best location for a bike parking station on campus? Choose one

- Outside Illick Hall  
 Outside Centennial Hall  
 In between Moon Library and the Gateway building  
 Other: \_\_\_\_\_

In your opinion, where is the best location for a bike parking station for off campus commuters? Choose one

- Westcott Street
- Marshall Street
- Lancaster Ave
- Meadowbrook
- Other: \_\_\_\_\_

In your opinion, where is the best location for a bike parking station for non commuting purposes? Choose one

- Westcott Street
- Marshall Street
- Nottingham Road (Nottingham Plaza)
- Nottingham Road and East Colvin (Tops Plaza)
- Shoppingtown Mall (for Eastern Neighborhoods)
- Green Hills Plaza (for Southern Neighborhoods)
- Geddes Plaza (for Western Neighborhoods)
- Other: \_\_\_\_\_

What amenities would you like on your bike as part of the rental fee? Select all that apply

- Bell
- U-Lock
- Helmet
- Basket
- Headlight
- Blinking Lights
- Rain Guard/ Rain Fender
- Other: \_\_\_\_\_

Which style of bike do you prefer for the bike share program? Choose one

- Mountain Bike
- Road Bike
- Beach Cruiser
- Hybrid (Mountain and Road Bike)
- Other: \_\_\_\_\_

What is the price range you would be willing to pay to participate in the bike rental program per semester with the aforementioned amenities?

- \$20-\$40
- \$41-\$60
- \$61-\$80
- \$81-\$100
- \$100-\$120
- Other: \_\_\_\_\_

What concerns about bad biking conditions do you have? Choose all that apply

- Road Salting
- Glass on the Road
- Separation of traffic from bicyclists
- Black Ice
- Puddles
- Potholes
- Other: \_\_\_\_\_

Which of the following infrastructure options do you prefer? Choose One

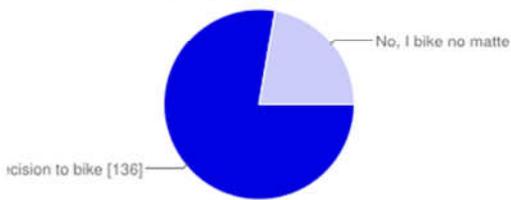
- A bike lane painted in on the road alongside vehicular traffic
- A bike lane with a curb separating vehicular and cycling traffic
- A bike lane, separated with paint, that shares space with pedestrians
- No additional bike lane infrastructure (no separation of cyclists and vehicles)
- Other: \_\_\_\_\_

Please use this space for additional comments, questions, or concerns you have about bike sharing.

\_\_\_\_\_

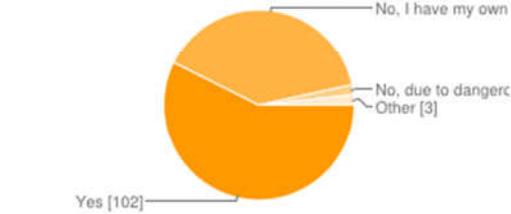
# Survey Summary

## Does weather influence your biking?



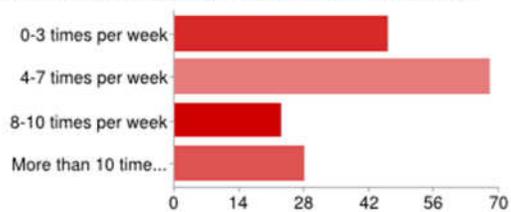
Yes, weather impacts my decision to bike	136	76%
No, I bike no matter what the weather	39	22%

## Would you be interested in taking part in a bike sharing program on campus



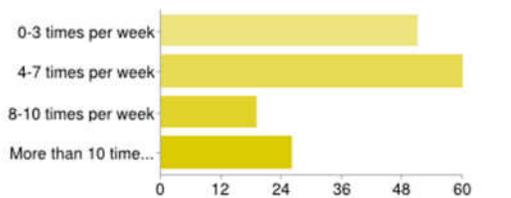
Yes	102	57%
No, I have my own bike	70	39%
No, due to dangerous biking conditions	3	2%
Other	3	2%

## When and how frequently would you bike? - Fall Semester



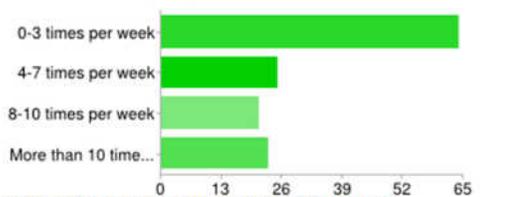
0-3 times per week	46	26%
4-7 times per week	68	38%
8-10 times per week	23	13%
More than 10 times per week	28	16%

## When and how frequently would you bike? - Spring Semester



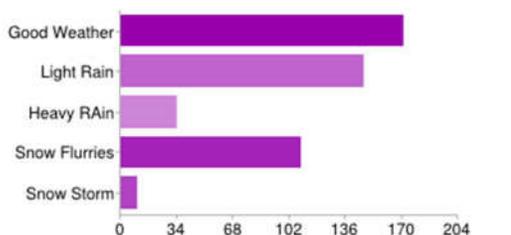
0-3 times per week	51	29%
4-7 times per week	60	34%
8-10 times per week	19	11%
More than 10 times per week	26	15%

## When and how frequently would you bike? - Summer Semester



0-3 times per week	64	36%
4-7 times per week	25	14%
8-10 times per week	21	12%
More than 10 times per week	23	13%

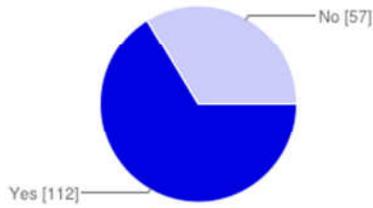
## If yes, under what weather conditions will you ride?



Good Weather	171	99%
Light Rain	147	85%
Heavy Rain	34	20%
Snow Flurries	109	63%
Snow Storm	10	6%

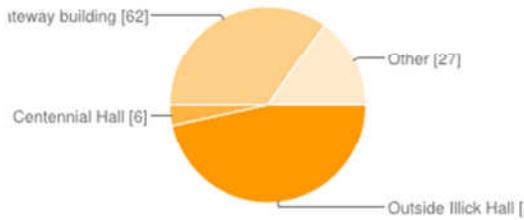
People may select more than one checkbox, so percentages may add up to more than 100%.

**Would you use the bike for purposes outside of commuting to and from ESF?**



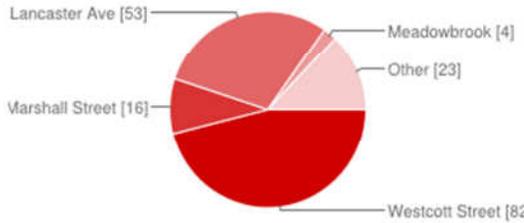
Response	Count	Percentage
Yes	112	63%
No	57	32%

**In your opinion, where is the best location for a bike parking station on campus?**



Location	Count	Percentage
Outside Illick Hall	83	47%
Outside Centennial Hall	6	3%
In between Moon Library and the Gateway building	62	35%
Other	27	15%

**In your opinion, where is the best location for a bike parking station for off campus commuters?**



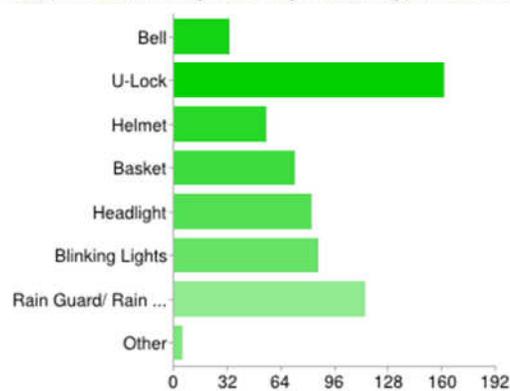
Location	Count	Percentage
Westcott Street	82	46%
Marshall Street	16	9%
Lancaster Ave	53	30%
Meadowbrook	4	2%
Other	23	13%

**In your opinion, where is the best location for a bike parking station for non commuting purposes?**



Location	Count	Percentage
Westcott Street	61	34%
Marshall Street	64	36%
Nottingham Road (Nottingham Plaza)	4	2%
Nottingham Road and East Colvin (Tops Plaza)	16	9%
Shoppingtown Mall (for Eastern Neighborhoods)	5	3%
Green Hills Plaza (for Southern Neighborhoods)	0	0%
Geddes Plaza (for Western Neighborhoods)	2	1%
Other	26	15%

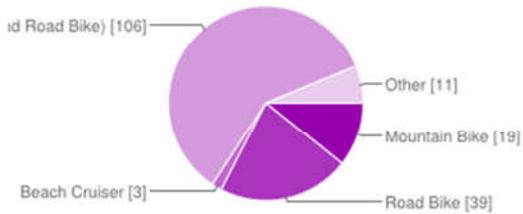
**What amenities would you like on your bike as part of the rental fee?**



Amenity	Count	Percentage
Bell	33	19%
U-Lock	161	93%
Helmet	55	32%
Basket	72	42%
Headlight	82	47%
Blinking Lights	86	50%
Rain Guard/ Rain Fender	114	66%
Other	5	3%

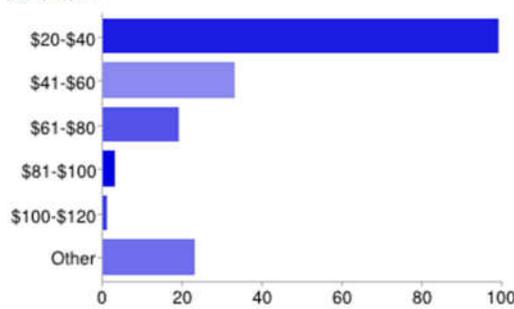
People may select more than one checkbox, so percentages may add up to more than 100%.

**Which style of bike do you prefer for the bike share program?**



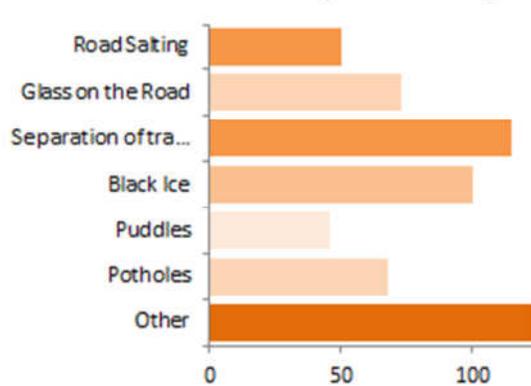
Style	Count	Percentage
Mountain Bike	19	11%
Road Bike	39	22%
Beach Cruiser	3	2%
Hybrid (Mountain and Road Bike)	106	60%
Other	11	6%

**What is the price range you would be willing to pay to participate in the bike rental program per semester with the aforementioned amenities?**



Price Range	Count	Percentage
\$20-\$40	99	56%
\$41-\$60	33	19%
\$61-\$80	19	11%
\$81-\$100	3	2%
\$100-\$120	1	1%
Other	23	13%

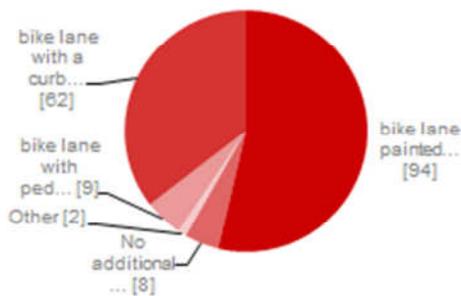
**What concerns about bad biking conditions do you have?**



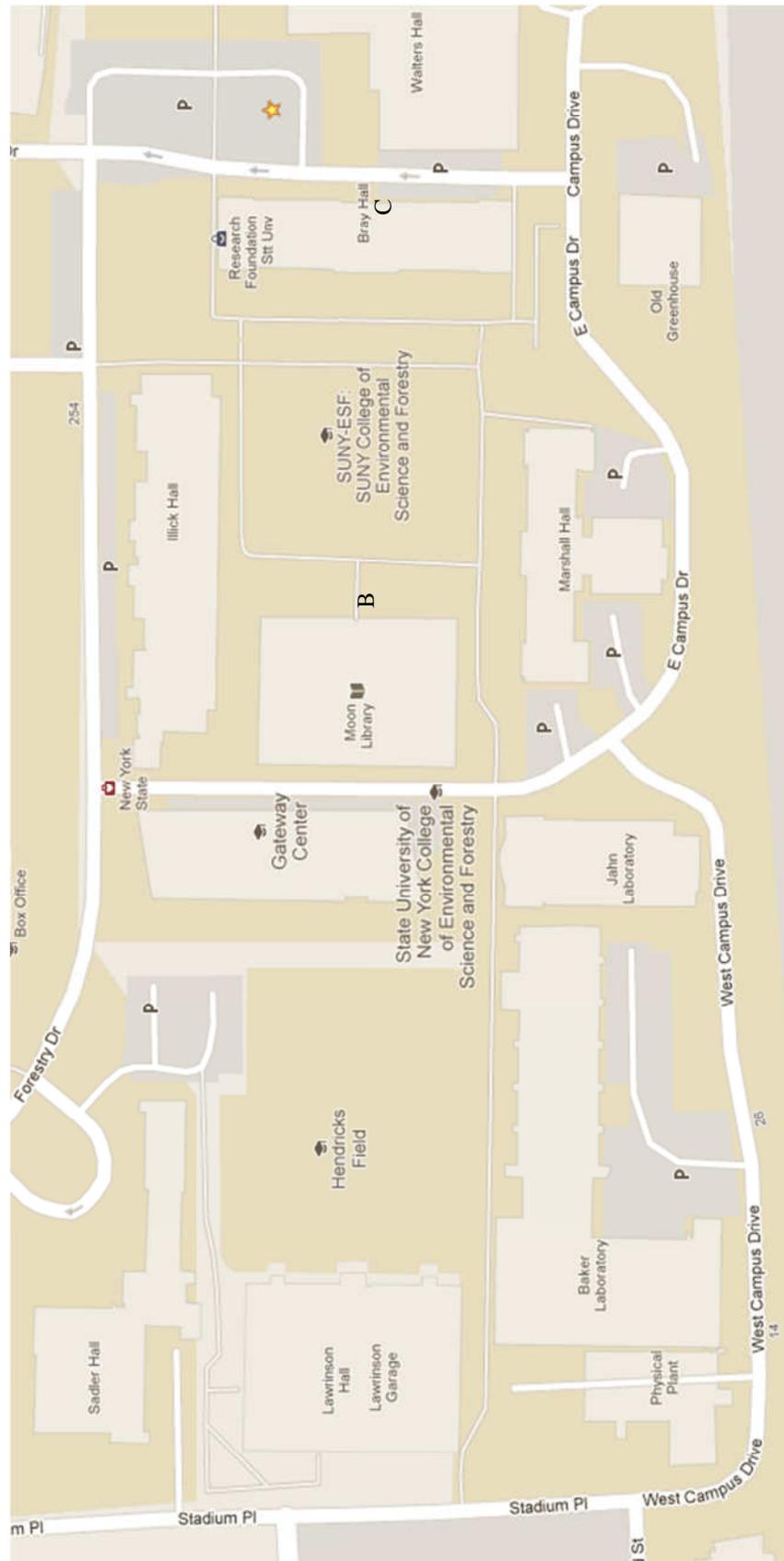
Concern	Count	Percentage
Road Salting	50	30%
Glass on the Road	73	43%
Separation of traffic from bicyclists	0	0%
Black Ice	100	59%
Puddles	46	27%
Potholes	68	40%
Other	123	73%

People may select more than one checkbox, so percentages may add up to more than 100%.

**Which of the following infrastructure options do you prefer?**



Option	Count	Percentage
A bike lane painted in on the road alongside vehicular traffic	94	51%
A bike lane with a curb separating vehicular and cycling traffic	62	35%
A bike lane, separated with paint, that shares space with pedestrians	9	5%
No additional bike lane infrastructure (no separation of cyclists and vehicles)	8	5%
Other	2	1%



## Campus Map

With BLP features, where C indicates UPO and B indicates where bikes are parked.

## **Knothole Articles**

### *Bike Safety Article*

#### **Bike Safety IS a Priority at ESF**

Many of us have experienced close calls with Centro buses, suffered injuries from getting doored by a car, or have been hesitant to bike down a congested Euclid. ESF's new Bicycle Safety Committee (BSC) hopes through their initiatives to one day reduce, if not eliminate, these hazards. The BSC is a subcommittee of the existing Campus Climate Change Committee and is chaired by EFB's Melissa Fierke. The Committee's priorities are to develop and recommend initiatives to promote bicycle safety and ridership at ESF through:

- Enhanced infrastructure on the ESF campus, in transition zones from SU to ESF, as well as from university neighborhoods
- Education and improved communication on best practices, bicycle facilities and safety programs at ESF
- Application to the League of American Bicyclists' program for ESF to be considered as a Bicycle Friendly University

Increasing bike ridership is important to ESF as it is a sustainable means of transportation, where increased ridership results in decreased CO<sub>2</sub> emissions, decreased traffic congestion, and a decreased need for vehicular parking. Encouraging ridership goes hand in hand with promoting bike safety as this can be a concern that limits ridership to and from our campus.

#### **Safety Tips**

- 🚲 Wear a helmet – it's your brain, protect it
- 🚲 Always follow the rules of the road – you are traffic
- 🚲 Ride with traffic - not against it
- 🚲 Never pass idling traffic on the left at a stop – wait for the green light
- 🚲 Use front and back bike lights – eminently critical at night
- 🚲 Keep your hands on the brake levers – know your stopping distance
- 🚲 Do not use headphones or a telephone - be aware of your space
- 🚲 Watch parked cars – do not get doored
- 🚲 Ride single file in groups

ESF is a campus of determined bikers. Students, faculty, and staff have been known to bike to campus through all weather conditions. Biking is so popular that sometimes all the bike racks are full and students are forced to lock their bikes to benches or even trees. The BSC is made up of individuals who bike to campus and want to see changes made to ease their commute, and others who are hesitant to bike because of a lack of bike infrastructure. According to the Syracuse Police department there were 80 bicycle crashes reported in 2011, and 95 in 2012. The majority of these accidents are attributed to bicyclist error, driver inattention, and failure to keep right-of-way. The need for an organization to promote bike safety seems obvious.

The BSC is taking steps to improve the bike commute through initiatives that include asking

ESF's Physical Plant to remove the curb at the east end of Illick, working with Syracuse University planners to install a bike box at the intersection of Sims and Comstock Avenues, and engaging with the City of Syracuse about safety issues along Euclid Avenue. Additionally, events to promote biker safety will take place over Earth Week, as well as at future student activity fairs and freshman orientations. Efforts of the committee will not stop there as they are also reaching out to the Syracuse Transit Authority to schedule a bike awareness training session for bus drivers and are designing a website to include bike rules and bike safety information.

If you have ideas about how to increase bike safety please contact Melissa Fierke at [mkfierke@esf.edu](mailto:mkfierke@esf.edu)

## *Bike Library Committee Article*

### ATTENTION

Beginning April 15<sup>th</sup> ESF will be introducing a Bike Library Program

#### What is it?

A bike library is a program in which bikes are made available for individuals to use, but not to own. Bikes will be kept at a designated bike rack on the south side of the Moon Library entrance. To participate, individuals must first fill out a waiver and a renter's agreement, then pay a \$20 membership due. The charge is only paid once to join the program, while the waiver and renter's agreement must be renewed each year. Students are allowed to check out the bikes for a period of up to 24 hours, then return their bike to the same check out location.

Drew Gamils and Frannie Monasterio are responsible for the creation of the bike library program, "As seniors we realized how heavily we have relied on our bikes these past four years. Biking is extremely popular on campus, and a program that allows students to check out bikes for a low cost allows our campus to encourage biking and alternative transportation," says Monasterio.

#### What kind of bikes, and how do we get one?

Working in conjunction with Mello Velo, we have purchased the Kona ArifcaBike 3. The bike features amenities such as a three-speed internal hub, a basket, and a durable, walkthrough frame that allows for easy mounting and is good for all heights. The SUNY ESF bike library program will start with five bikes each with a designated U-Locks and generator bike lights, and helmets from Upstate Medical University. The bikes will be stationed on campus with keys available for check out.

Between April 15th and May 15th students with a valid ESF ID card must first fill out and submit a renter's agreement, a waiver, and a \$20 onetime membership due to a Bike Committee Member. Students who fill out and submit the waiver will receive a red sticker on their ID that will allow them to check out a bike from the University Police Office (UPO) in the basement of Bray. Students will be responsible for filing documentation with identifying information, such as name, student ID, and time checked out at the UPO. Beginning in the 2013 fall semester, students will be able to check out the bikes from Moon Library in a manner similar to checking out books. Next year, waivers and renter's agreements will be submitted to the library circulation desk. Library employees will place a sticker on the IDs and provide students with a key to the bike lock.

#### Any other charges?

Members will be charged \$15 a day for each day past the check-in date. After 10 days the Member will be charged \$500 for the bike. If the bike is stolen, members must immediately file a claim and Bike Committee members will send an alert email to the student body.

#### Who is responsible for the bikes?

A Bike Library Committee has been formed to continue the project in the future. They will be responsible for checking on the bikes, continuing the program, and contacting Mello Velo when extensive repairs or additional help is necessary.

Please contact Drew Gamils ([dvgamils@syr.edu](mailto:dvgamils@syr.edu)) if you would like to join the Bike Library Committee or want to obtain a waiver and renter's agreement.

## **Contacts**

Anne E. Lombard  
Dean of Student Affairs  
[aelombard@esf.edu](mailto:aelombard@esf.edu)

Christine Langlois  
Assistant Director of Physical Plant for Maintenance and Operations  
[calanglo@esf.edu](mailto:calanglo@esf.edu)

Emanuel Carter  
Department of Landscape Architecture  
[ejcarter@esf.edu](mailto:ejcarter@esf.edu)

Joseph Rufo  
Vice President for Administration  
[jlruf@esf.edu](mailto:jlruf@esf.edu)

Linda Hartsock  
Director, Syracuse University Office of Community Engagement and economic Development  
[ldhart01@syr.edu](mailto:ldhart01@syr.edu)

Mary Mallia  
Director University Offices department  
Office for Environmental Sustainability  
[mmallia@albany.edu](mailto:mmallia@albany.edu)

Melissa Fierke  
Department of Environmental and Forest Biology  
[mkfierke@esf.edu](mailto:mkfierke@esf.edu)

Mello Velo Bicycle Shop  
[info@mellovelobicycles.com](mailto:info@mellovelobicycles.com)

Scott Becksted  
Chief of Police  
[smbeckst@esf.edu](mailto:smbeckst@esf.edu)

Steven Weiter  
Director of College Libraries  
[spweiter@esf.edu](mailto:spweiter@esf.edu)

## References

- Bixi. (n.d.). *Montreal bixi*. Retrieved from <http://montreal.bixi.com/>
- CBC. (2012, 09 21). Montreal bicycle sharing company hitting financial deficit. *CBC*. Retrieved from <http://ca.news.yahoo.com/montreal-bixi-bicycle-maker-hits-financial-deficit-214302602.html>
- Cities with bike-sharing schemes*. (2012, 10 23). Retrieved from <http://www.lonelyplanet.com/themes/best-in-travel-2013/cities-with-bike-sharing-schemes/>
- Fact Sheet Connective Corridor, Phase 1, Contract 1. Save the Rain. 1/5/2011PDF.
- Frattini, K. (2011, 06 06). Bixi launch bike sharing in toronto. *Bike Radar*. Retrieved from BIXI launch bike sharing in Toronto
- Hazlitt, S. (2012, 09 05). *Switching lanes: New bike lane serves as catalyst for thriving bike culture on campus*. Retrieved from <http://www.dailyorange.com/2012/09/switching-lanes-new-bike-lane-serves-as-catalyst-for-thriving-bike-culture-on-campus/>
- Onondaga County Department of Water Environment Protection, (2011). *Fact sheet connective corridor phase 1, contract 1*. Retrieved from Save the Rain website: <http://savetherain.us/wp-content/uploads/2011/08/Connective-Corridor-Phase-1-Contract-1.pdf>
- Peña, F., Donostia, A., & Sebastian, S. The Civitas Initiative, (2012). *City bike scheme as part of cycling promotion*. Retrieved from website: [http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCQQFjAB&url=http://www.civitas-initiative.org/docs\\_internal/760/TS11Presentation\\_San\\_Sebastian\\_Fermin\\_Echarte.ppt&ei=yriJUL\\_fHqKA0AH6ooBQ&usg=AFQjCNE4i-jUHf0HUGzFeBe01NL2-RiJJg&cad=rja](http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCQQFjAB&url=http://www.civitas-initiative.org/docs_internal/760/TS11Presentation_San_Sebastian_Fermin_Echarte.ppt&ei=yriJUL_fHqKA0AH6ooBQ&usg=AFQjCNE4i-jUHf0HUGzFeBe01NL2-RiJJg&cad=rja)
- Shama, Prachi. Innovative Districts as Economic Growth Strategy. New Jersey Future. August 2012. PDF
- The City of Portland. Portland Bureau of Transportation. *Frequently Asked Questions*. Portland: 2012. Web. <<http://www.portlandoregon.gov/transportation/article/387774>>.
- The City of Portland. Portland Bureau of Transportation. *How does Bike Share work?*. Portland, 2012. Web. <<http://www.portlandoregon.gov/transportation/article/387769>>.
- The City of Portland. Portland Bureau of Transportation. *Learn more about other US bike share systems*. Portland: , 2012. Web. <<http://www.portlandoregon.gov/transportation/article/387784>>.
- University Hill Bike Network Project. Syracuse Metropolitan Transportation Council. 2008 PDF.
- University Hill Transportation Study. Task 4: pedestrian and bicyclist issues and needs assessment. April 2006. Syracuse NY. PDF.

## Websites

- <http://www.canada.com/travel/bicycle+friendly+cities/2445188/story.html>
- <http://ec.europa.eu/environment/europeangreencapital/docs/cities/2012-2013/European%20Green%20Capital%20Award%202012-13%20nuevo%20estandar.pdf>
- <http://www.docstoc.com/docs/97554907/Optimising-Bike-Sharing-in-European-Cities---A-Handbook>