

2015

Utah State University - Logan City's  
**COMMUNITY BRIDGE INITIATIVE**



**PILOT-YEAR REPORT**

*CBI is a collaboration between:*





*LAEP Students participating in the **Land Planning for Residential Development** project*

CBI is a collaboration between:



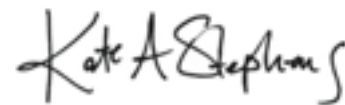
# ACKNOWLEDGMENTS:

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The successful launch of the Community Bridge Initiative could not have been done without the support and encouragement of the Logan City Mayor, Craig Petersen, and the Utah State University Provost, Noelle Cockett.

Mayor Craig Petersen was involved in almost every project and helped facilitate smooth communication and presentation opportunities throughout the year. Noelle Cockett presented the CBI concept to the Logan City Council for initial approval and her office has supported the development of the program through faculty recommendations and the opportunity to present at the Provost's Series on Instructional Excellence.

Furthermore, this successful pilot year could not have been completed without the willingness of USU faculty and their Logan City counterparts to step forward and try something new. Faculty members and City employees were not offered financial incentives to participate; they simply believed in the power of community engaged learning and were willing to go above and beyond to make this program a success. Logan City employees were invited into the classroom to serve as co-educators and discuss some of the most pressing issues facing our City. USU faculty members from multiple disciplines sat down at the table and proposed solutions based on their areas of expertise. Through these collaborative conversations, CBI was able to develop innovative solutions and engage students in hands-on, community-based problem solving. Perhaps most importantly, we would like to thank Marco Bodini, the CBI intern who compiled the deliverables from each of the projects and developed a comprehensive pilot-year report to be presented to Logan City. Marco's work served as the glue holding all of this valuable work together and we are extremely grateful.



**Kate Stephens**, Asst Director  
Center for Civic Engagement & Service-Learning  
Director, Student Sustainability Office

# Table of Contents:

Introduction.....	5
A New Approach to Service Learning.....	6
CBI's Pilot Year.....	7
Projects/Classes.....	9
Air Quality Improvement.....	11
Citywide Tree Pruning.....	13
Geographic Information Systems.....	15



Land Planning for Residential Development..... 16

Neighborhood Improvement..... 17

Analysis of Logan City Recycling Program..... 18

Urban Deer Management..... 19

Logan City After-School Program Evaluation & Training..... 20

City Employees..... 23

Deliverables.....24-27



# INTRODUCTION:



## What is it?

The USU Community Bridge Initiative (CBI) is a place-based service-learning model that enables students to utilize knowledge obtained in the classroom to tackle real-world problems identified by the community. This is more than technical assistance; it is direct engagement.

## How it works:

Most cities and public agencies lack the capacity to meet the new demands of livability and sustainability.

CBI addresses this gap through a multi-disciplinary effort to assist the partner city with its goals and projects. Students and professors work on topics developed jointly by instructors and city staff, ensuring that student ideas are relevant to communities. This partnership gives students the opportunity to investigate and apply their training to a variety of real-world projects and provides cities with service and movement to foster a transition to a more sustainable, livable future.

## Benefits:

**Students:** CBI does more than simply put students in the field – it engages them with real municipal projects, city staff, and local residents. Connecting their regular coursework to municipal projects is incredibly motivating and satisfying.

**Faculty:** Many faculty engage in community work, but such work is often isolated. CBI will help faculty engage with city staff and with colleagues from across campus through coordinated, integrated, cross-disciplinary projects. CBI will create synergies that are difficult for faculty to achieve on their own.

**Cities:** Most cities lack the capacity to meet modern demands. Ideas and human capacity abound within universities, but such knowledge typically has, at best, an indirect path to community use. Cities benefit directly from bold ideas that propel fresh thinking, improve livability for residents, and invigorate city staff.

**Universities:** Universities routinely express a desire to be both interdisciplinary and relevant. CBI presents a new model to meet these needs. CBI embodies the University's mission of serving the public good in its position as a public institution of higher education.



*Living with Wildlife Students, participating in the **Citywide Tree plan project.***

# A NEW APPROACH TO SERVICE LEARNING

In April 2014, a team from Logan, Utah (made up of a USU engineering professor, the Assistant Director of USU's Center for Civic Engagement & Service-Learning (CCESL), a USU graduate student and the Logan City Conservation Coordinator) attended the University of Oregon's Sustainable City Year Program (SCYP) annual conference and training to learn more about how this successful model might be adopted and adapted to Utah State University and the Logan community.

While the University of Oregon's program has been tremendously successful, there are components of the program that the Logan team felt would transfer well to our community.

Because Logan is somewhat geographically isolated and many of our students have employment and family obligations outside of school, it is not as feasible for USU students to travel to cities outside of Cache Valley on a regular basis. In addition, the team acknowledged that there is a divide between the

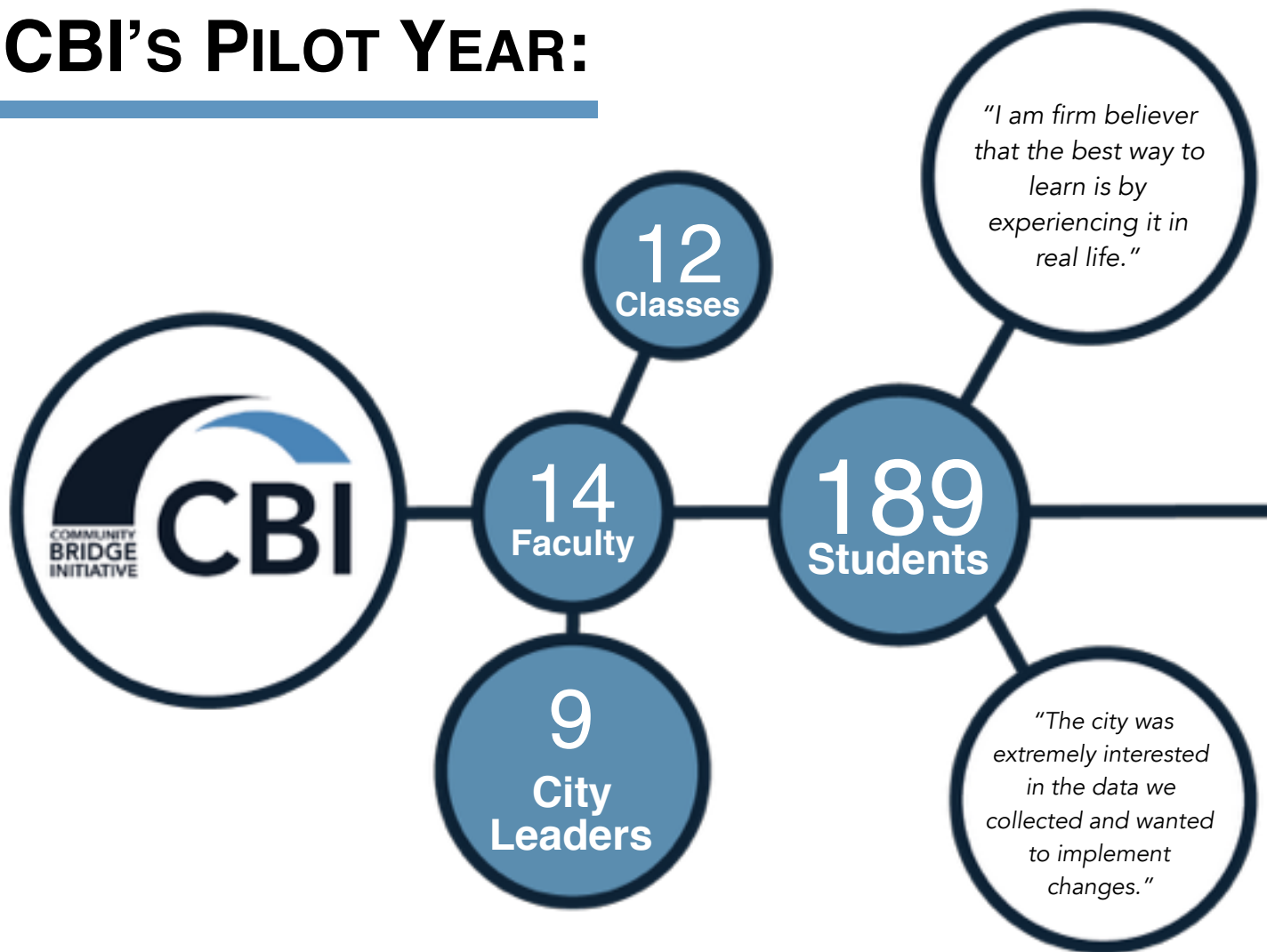
University and the Cache Valley community, and we would like this program to serve as a bridge, strengthening communication and establishing greater reciprocity.

In our opinion, overcoming the University-City divide can only be accomplished by making a long-term commitment to place. With this in mind, our team decided that the USU model should begin with a long-term commitment to a single community rather than one-year commitments to multiple communities.

Utah State University's Community Bridge Initiative (CBI) is currently part of the Educational Partnerships for Innovation in Communities (EPIC), a network of universities implementing the "EPIC Framework" a unique, large-scale university-community partnership program. Originally created in 2009 by the University of Oregon, the framework is now being adapted by universities across the U.S. and internationally.



# CBI'S PILOT YEAR:



## CBI's Faculty:

**Dr. Dave Anderson**  
Associate Professor,  
Landscape Architecture &  
Environmental Planning

**Dr. Roslynn Brain**  
Assistant Professor,  
Environment & Society

**Dr. Mark Brunson**  
Professor, Environment & Society

**Dr. Ryan Dupont**  
Professor, Civil &  
Environmental Engineering

**Dr. Sonia Manuel-Dupont**  
Associate Professor,  
Communication Disorders &  
Deaf Education, English

**Dr. Courtney Flint**  
Associate Professor  
Environmental Sociology

**Dr. Mike Kuhns**  
Wild land Resources  
Department Head and  
Professor, Forestry  
Extension Specialist



**Dr. Carlos Licon**  
 Assistant Professor  
 Landscape Architecture &  
 Environmental Planning

**Dr. Randy Martin**  
 Associate Research Professor,  
 Civil & Environmental Engineering

**Dr. Edwin R. Stafford**  
 Associate Department Head &  
 Professor Huntsman School of  
 Business

**Dr. Jessica Lucero**  
 Assistant Professor,  
 Social Work

**Dr. Jennifer Roark**  
 Assistant Professor, Social Work

**Dr. Joseph Wheaton**  
 Assistant Professor Watershed  
 Sciences

**Dr. Robert Schmidt**  
 Associate Professor,  
 Environment & Society

# Projects / Classes:

## Air Quality Improvement:

**Course:** Communicating Sustainability ENVS 4700

**Professor:** Dr. Roslynn Brain & Dr. Ed Stafford

**Class Size:** 10

**Project:** Clean Air Poster Contest

**Course:** Environmental Sociology 4620

**Professor:** Dr. Courtney Flint

**Class Size:** 38

**Project:** Perspectives on Air Quality Survey

**Course:** Civil & Environmental Engineering 5750

**Professor:** Dr. Randy Martin

**Class Size:** 3

**Project:** Carbon Monoxide Lab Report in High Idling Areas

**Course:** Air Quality Management Civil & Environmental Engineering 5860

**Professor:** Dr. Randy Martin

**Class size:** 8

**Project:** Model the impact of automobile hot start vs. idle emissions. Design Smog-Free Tower

## Citywide Tree Pruning:

**Course:** Living with Wildlife - ENVS 3600

**Professor:** Dr. Robert Schmidt & Dr. Mike Kuhns

**Class Size:** 88

**Project:** Prune some of Logan's 11,000 street Trees

## Geographic Information Systems:

**Course:** GIS Research Projects WATS 4931/6921

**Professor:** Dr. Joe Wheaton

**Class Size:** 2

**Project:** GIS Story Maps

## Land Planning for Residential Development:

**Course:** Landscape Architecture & Environmental Planning 3120

**Professor:** Dr. Carlos Licón & Dr. David Anderson

**Class Size:** 18

**Project:** Land Planning for Residential Development



## Neighborhood Improvement:

**Course:** Human Behavior In the Social Environment - MSW 6250  
**Professor:** Dr. Jessica Lucero  
**Class Size:** 13  
**Project:** Hillcrest Neighborhood Survey

## Logan City After-School Program Assessment & Training:

**Course:** Research and Policy Bridge SW 6595  
**Professor:** Dr. Jessica Lucero  
**Class Size:** 15  
**Project:** Designing Survey

**Course:** Social Work Research SW 6800  
**Professor:** Dr. Jennifer Roark  
**Class Size:** 3  
**Project:** Cultural Competency Assessment

**Course:** Cultural and Linguistic Diversity ComD 5210  
**Professor:** Dr. Sonia Manuel-Dupont  
**Project:** Develop Training Materials for ASP workers

## Analysis of Logan City's Recycling Program:

**Course:** Solid & Hazardous Waste Management CEE 3780  
**Professor:** Dr. Ryan Dupont  
**Class Size:** 8 Students  
**Project:** Analysis of Logan City's Current & Potential Recycling Programs

## Urban Deer Management:

**Course:** Special Topics, People and Urban Deer in Logan ENVS 4950  
**Professor:** Dr. Mark Brunson  
**Class Size:** 8  
**Project:** Resident Attitudes Survey

# Air Quality Improvement:

As part of a broader university-community engagement initiative, four professors, and 59 students at Utah State University joined forces with Logan City to help improve local air quality.

**Air Quality Survey:** In February 2015, Dr. Courtney Flint's Environmental and Natural Resource Sociology class contributed to the Air Quality Improvement project by conducting a pilot survey of local perspectives on air quality.

The survey objectives were two-fold: to provide USU students with an opportunity for hands-on research experience on a key issue in their community, and to provide the City of Logan with valuable information about community perspectives on air quality. This information will be used to inform future air quality improvement efforts (page 24).

## **CO Measurement in High-idling Areas: :**

Also during the spring semester, students from Dr. Randy Martin's Air Quality Measurement course conducted a carbon monoxide experiment in order to better understand CO measurement techniques, to learn whether high-idling areas in Logan are hazardous to human health, and to provide data to the City of Logan.

The chosen test sites were Logan City center, Hillcrest Elementary School and Logan High School (high idle areas). Data was taken for approximately two days at each site (conditions allowing) so that the data could be verified and compared.

The data was compiled and analyzed for a report (page 24) that identifies high pollution areas due to idling and offers suggestions for reducing CO emissions.

**Clean Air Poster Contest:** Marketing professor Dr. Edwin Stafford and Dr. Roslynn Brain's Communicating Sustainability course joined forces with Logan City to help improve local air quality via a clean air



**59  
Students**



**5  
Projects**



**4  
Faculty**

poster contest at Local High School.

Contest goals were: 1.) to inform students about local air quality problems and driving behaviors that can lessen their personal impact, and 2.) to create education outreach materials for their peers and the broader community.

Over 100 high school students were mentored in green messaging and graphic design by university students and faculty, resulting in over 75 poster entries. Ultimately, 14 winning posters were selected for community outreach, each receiving a prize from a local business. The best overall poster received a grand prize from Logan City. Self-reported measures indicated that the contest increased student awareness about local air pollution and their willingness to engage in driving behaviors to protect air quality. Logan High's LEAF Club took the initiative to launch a second clean air poster contest during the winter of 2016, and the contest is likely to become an annual event.

#### **Automobile Hot Start vs. Idling Emissions**

Given our geography, It is important for the public to understand how driving behaviors are influencing Cache Valley Air. In order to shine light onto this issue, Dr.

Randy Martin and a group of four students, carried out an air quality analysis to compare the impact of vehicle hot start emissions vs. those of idling. The results of this research should help the public lessen the environmental impact of their driving behaviors.

**Smog-Free Tower:** In hopes of increasing air pollution awareness in Cache Valley, Dr. Martin and four students from his Air Quality Management class set out to design an art installation based on the Smog-Free Project by Dutch artist Daan Roosegaarde. Smog-free Towers suck in dirty air, filter it and return bubbles of clean air through vents.

The main objective for the project was to raise public awareness by designing an electrostatic precipitator (ESP) art installation that provides an area for viewers to experience clean air. This project was estimated to cost \$628,245 if implemented locally, demonstrating the impracticality of cleaning our air with Smog-towers, and the necessity to tackle the causes of air pollution.

## Student Impact

100%

of students would like to take a CBI course again

of students felt that the class positively impacted them

of students would list this experience in their resume

*"Gave me a greater understanding of what i could be doing in the future"*

-ENVS 4700 Student

# Citywide Tree Pruning

88  
Students

Dr. Robert Schmidt's class, Living with Wildlife, partnered with the City of Logan's forestry crew to prune some of Logan's 11,000 street trees. As Dr. Schmidt's class focused on issues related to human interactions with wildlife, this project gave students the opportunity to assist with the actual management of urban wildlife habitat, and demonstrate how residents' selection and care of trees can impact urban ecosystems. Students gained practical skills and also a better understanding of urban tree management.

For Logan City, this project improved air quality, enhanced urban wildlife habitat, reduced infrastructure costs, and made traveling on sidewalks safer, and beautified the city.

Prior to the project, City Forester Joe Archer came into the classroom and gave a presentation on the aesthetic, health, and safety reasons for pruning trees, and discussed how to trim trees safely and effectively.

For the project, 88 Living with Wildlife students signed up for 6 hours of service. No more than 20 students could sign up per shift and shifts were spread out over 2 weeks with 2 shifts per day.



*"Trimming trees allowed me to interact with wildlife in a place that we do not normally think about"*

-CBI Student



**~500**  
Hours  
Volunteered

*"The other classes I have taken taught me the content, but not the application. This class taught both"*  
- CBI Student

*"It gave students a marketable and beneficial skill they may have otherwise never attempted to learn"*  
- CBI Student

For each shift, students were split into 2 groups and assigned to a City forestry crew member. Prior to trimming, general instructions and safety guidelines were given. The total number of volunteer hours was approximately 500.

Generally, students felt positive about the experience and many felt that the experience gave them a greater sense of belonging

to the community of Logan and were likely to continue volunteering. Many also felt that doing hands-on work for class was a positive civic experience.

Dr. Robert Schmidt concluded, "We learned that the City's forestry crew is so efficient that training these students slowed down their work productivity. That was not our intent, and future participation might be better used planting new trees and working with tree pruning teams spread out over a longer time period. In the end, A good time was had by all!"

## Student Impact

**91%** of students felt that the class positively impacted them

**88%** of students would like to take a CBI course again

**69%** Felt that this class was more effective in communicating course content, in comparison to traditional USU courses.

# Geographic Information Systems

As we move further into the information age, municipalities scattered across the United States are recognizing the value of utilizing Geographic Information Systems (GIS) to convey information about various public services to their public.

Likewise, Logan City felt the need to update its Parks and Recreation website to include a new way for the public to explore information about the City's parks and trails systems.

Integrating GIS story maps to the Parks and Recreation website would not only help the City convey valuable information to its residents and tourists, but also provide a new method for Logan City planners to assess how well the parks and trails serve the public. Such City needs were an ideal challenge for CBI.

Dr. Joe Wheaton and two of his GIS students fulfilled these needs by creating two separate GIS story maps.

One student created a detailed GIS story map outlining recreation trails in Logan, while the other student created a GIS map showing where parks were located within the city and how they correlate with different socioeconomic groups.

Students were able to apply practical skills and provide a real benefit to the city. One student was even offered a job as a result of his work on this project. See page 25 for full story maps

*"Great experience to work on a hands on project"*  
- **CBI Student**



# Land Planning for Residential Development

Cache Valley's population is growing, with the associated changes in urban form, traffic, social composition, and a diversity of demands of services and infrastructure. The valley is a sensitive environment, where careless development can damage the very reason people like to live in this place: a small town feeling with a strong agricultural heritage and proximity to great year round outdoor recreation opportunities. The city of Logan was concerned with the need to provide a variety of housing opportunities to its growing population.

Dr. Carlos Licon, and Dr. Dave Anderson instructed a group of 18 LAEP Juniors to work on innovative residential plans that would address the demands of Logan City's growing population.

Students organized themselves into five teams and presented detailed reports to Logan City Mayor

Craig Petersen, planning professionals from Logan and Bear River Association of Governments, and some of the property owners. The five reports (page 26) touched on specific solutions for how the city can provide a variety of housing opportunities within its boundaries and encourage settlement patterns in close proximity to employment and urban amenities, while creating safe and place-making development for new families in Logan.



# Hillcrest Neighborhood Improvement

*"Students gained greater competency in research, but they also were able to apply human behavior theory in the context of community"*  
-Dr. Lucero

With support from Logan City's Community Development Director, Mike DeSimone, Professor Jessica Lucero and 13 of her Master of Social Work (MSW) students in her Human Behavior in the Social Environment: Groups, Organizations & Communities course embarked on a community-based research project that would assist the city in its neighborhood planning efforts for Hillcrest Neighborhood.

This asset-based approach for community development is useful for several reasons: (1) it promotes investment from local residents which can lead to more involved collective efforts; (2) it favors local residents' lived experience in their neighborhood over an outsider's assessment; and (3) it identifies key strengths in the neighborhood that can

be maximized to overcome the challenges already present.

The purpose of this project was twofold: (1) to document the unique strengths and areas for improvement as reported by Hillcrest neighborhood residents in order to inform Logan City's Hillcrest development plan; and (2) to provide MSW students with a real-world community project in which they could apply community theory and develop community-based research skills.

This project gave neighborhood residents of Hillcrest a greater voice in the neighborhood planning process, and offered Logan City innovative data and recommendations to inform their continued planning and development efforts.

Dr. Lucero concluded; *"In social work it is imperative that our students understand the entire system of service delivery, and one major component of this system is city government. Not only were the projects relevant to my course objectives, but they taught my students how to interface with local government officials effectively"*

## Student Impact

100%

of students would like to take a CBI course again

of students felt that the class positively impacted them

of students would list this experience in their resume



# Analysis of Logan City's Rural Recycling Program

The City of Logan has provided curbside recycling to the residents of Cache Valley for over 10 years. In rural areas of the county, as well as in outlying towns, the efficiency of recycling collection is lower than in the rest of the service area. This is largely due to the fact that residences, and thus recycling bins, are more dispersed. Combined with the generally lower utilization rates in rural areas, the collection cost per ton of recyclable waste is greater there than in urban areas of Cache Valley.

In an effort to make the existing program more efficient and cost effective, City Mayor Craig Petersen requested, through CBI, that USU conduct a cost-benefit analysis of the current rural recycling routes.

In the fall of 2015, eight students from Dr. Ryan Dupont's Solid and Hazardous Waste Management class worked together with Conservation Coordinator and Recycling Educator, Emily Malik, to analyze expenses from the 1078 miles of rural recycling routes, in terms of fuel, vehicle maintenance, contaminated loads, new recycling containers, and employee costs.

Two complete reports (page 25) were delivered to the City, which include a detailed cost-benefit analysis of the rural recycling program, as well as seven different options to be considered in making decisions about the rural recycling program.



*"Please continue to allow students to work on problems within the community. It was an excellent experience and should be completed more frequently."*



# Urban Deer Management

(Phase 1)

The number of urban deer in Logan City is increasing and without management, they will likely cause serious problems. While some residents have expressed concern and asked the City to address it, others believe no action is necessary.

The experience of urban deer population control in other Utah cities suggests that this will be a controversial activity. Consequently, it is important that the City receives extensive public input to inform decisions moving forward.

In order to gather the necessary information, Dr. Mark Brunson assembled a team of 8 students from the Quinney College of Natural Resources, majoring in Wildlife Science, Recreation Resource Management, Environmental Studies, and Conservation and Restoration Ecology, to tackle the Urban Deer Management project.

The team worked with Dr. Brunson to learn about urban deer management in Utah and issues specific to Logan. Then, Dr. Brunson's students designed a survey based on similar efforts in other

cities, and reviewed the academic literature about urban deer management.

In order to achieve a representative sample of Logan, students also developed a sampling strategy to randomly select 600 households across Logan City, and created a Spanish version of the survey. Furthermore, all students were required to go through the Institutional Review Board's training and certification program prior to participating in the study.

In Phase 2 of the Urban Deer Management project, students will conduct data entry and analysis, and deliver a report of their findings to Logan City.



# Logan City After-School Cultural Competency Assessment & Training

After-school programs are designed to help students grow academically and socially. Programs often include homework assistance, healthy snacks, sports, art, music, and field trips. Program goals are to provide reliable and safe after-school supervision, increase academic enrichment, and manage behavioral problems, particularly for low-income students and minority groups.

Logan City understands the importance of such programs and their role in the community. In order to further improve the quality of services provided, the Logan City After-School Program (ASP) requested, through CBI, that USU develop and administer a questionnaire to assess ASP worker's cultural competency. Results from this assessment were used to identify areas in which ASP workers can be better trained and prepared to respond to diverse student needs.

This project was divided into three phases and integrated into three courses over three semesters, so that each phase could build on previous progress. Phase 1 concluded in the Summer of 2015. Dr. Jessica Lucero's MSW 6595 students designed the cultural competency questionnaire and prepared the IRB protocol. Dr. Jennifer Roark's MSW 6800 students took on Phase 2 of this project in the Fall. Three students carried out a statistical analysis of results and compiled a stakeholder's report (page 27) with recommendations to provide a cultural competency training to all ASP workers. Dr. Sonia Manuel Dupont's Cultural and Linguistic Diversity in Communicative Disorders class is now (Spring 2016) taking on the third phase of this project. Her students are developing training materials to be used by ASP for cultural competency training purposes.



# Successes & Lessons Learned



## Successes:

Reciprocity is a key element of Service-Learning. CBI projects were selected through a process in which Logan City employees submitted proposals to be reviewed and prioritized by the mayor's office. This process enabled USU faculty to work with those projects that were highest priority to the City.

- When analyzing all courses together, 92% of the students reported that the class positively impacted them, 88% would take a CBI course again, 63% would list the experience on their resume, and 73% felt that the class was more effective in communicating course content compared to traditional USU courses. Because the Living with Wildlife course was significantly larger in comparison to other courses, results may be somewhat skewed. The outcomes, however, are still overwhelmingly positive and suggest that most students were satisfied with CBI courses and would like to see more of them offered in the future.

## Lessons Learned

With full implementation of the CBI program, students have the potential to learn course content while engaging in real-world projects that contribute to the community they live in, bridging the gap between the "university on the hill" and the city. This could help permanent residents better appreciate their status as a college town. As

one student wrote in her survey, "I think future projects will help city residents see students as an asset, versus a nuisance in Logan." With greater expansion, CBI could potentially assign thousands of USU students to various community projects that would have a broad-reaching positive impact on the town they live in. Likewise, this program has the potential to provide students with skills needed for their intended careers, giving students exactly what they want out of their university experience. As quoted earlier, "how better to learn than by participating in hands-on projects." Students are willing, and the university has a responsibility to provide these experiences for them.

In regard to CBI, generating awareness is the first step in the successful implementation of this program. Many students in the pilot courses did not realize that they were part of CBI until it was explained to them at the end of the semester. With greater attention given to this program, students will likely be more motivated to select and participate in these classes once they understand the larger context and potential benefits. Second, as students suggested, the CBI program should be expanded and more courses should be offered to accommodate student interests. Once students are made more aware of the CBI program, it is likely that more students and faculty members will want to be involved.



Lastly, it is important to make sure that community partners are getting as much out of this partnership as the students are, and future research should gauge whether or not this is the case. Meetings should be held beforehand to clarify expectations and exit interviews should be held to ensure that everyone in the partnership is satisfied. Analyzing individual feedback is vital to determining program strengths, weaknesses and areas for improvement.

## Recommendations:

1. In choosing a project, deliberation should be taken to ensure that the project and course content match as closely as possible so that the community partner benefits and students understand the relevance and gain professional skills.

2. Once the project and faculty are chosen, the faculty and the community partner must meet and agree upon the Scope Of Work (SOW) to ensure that expectations are clearly understood from both sides.

3. When the course begins, students should know that they are part of a CBI course. Greater understanding of the program will motivate students to become more invested as they see how their skills and experience can contribute to the community and they can benefit individually. This can be accomplished through in-class presentations and direct interactions with the community partner.

4. After the project is completed, evaluations from students, faculty and community partners should be conducted to determine what worked well and what could be improved.

5. To ease the process, the Memorandum of Understanding (MOU) and Scope of Work (SOW) should be online documents with electronic signatures.

6. Project proposals must be submitted by the City staff serving as the partner/co-educator. If the City partner is not fully invested in the project, the partnership is less likely to succeed.

7. A full-time coordinator is needed to meet the demands of program growth. It has been suggested that Logan City and USU contribute to the match for a full-time 2 year VISTA volunteer to meet this need.

8. Survey courses requested that they be given advance notice so that they have adequate time to go through the IRB process and conduct a meaningful survey.

9. Multi-semester projects that built upon research from the previous semester proved to be successful.

10. In addition to Logan City projects, USU's Service-Learning program matches Cache Valley non-profit organizations with USU courses and faculty. The Center for Civic Engagement and Service-Learning (CCESL) has developed a partnership program that allows community partners to participate in Service-Learning at varying levels with varying benefits. Rather than developing two parallel community engagement programs, CCESL would like to invite Logan City to become a top-tier community partner with a signed MOU with the university. Being a top-tier partner would allow the City to participate in events such as the annual speed networking social, volunteer management training, award recognition events, etc. alongside local non-profits. By combining these two initiatives, USU could better meet the student demand for these courses.



# City Employees (Thank you.)

**Mayor Craig Petersen**  
Logan City Mayor

**Emily Malik**  
Logan City Conservation  
Coordinator

**Mike Desimone**  
Logan City Community  
Development Director

**Debbie Harvey**  
Parks and Recreation  
Information Representative

**Issa Hamud**  
Logan City  
Environmental Director

**Russ Akina**  
Parks and Recreation Director

**Joe Archer**  
Logan City Forester

**Mark Nielsen**  
Logan City Public Works  
Director

**Tara Alder**  
Logan City Parks & Recreation  
Community Youth Coordinator





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# Complete Reports & Deliverables

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Mobile applications such as *RedLaser*, are available for free for iOS and Android devices.

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## Air Quality Improvement



### **My Mom Idles Less Than Your Mom!**

Dr. Edwin Stafford &  
Dr. Roslynn Brain  
<https://goo.gl/Yk5HCZ>



### **Carbon Monoxide Lab Report**

Josh Hortin  
Mitchell Rasmussen  
Phil Suiter  
<https://goo.gl/kDGiHI>



### **Air Quality Survey Questionnaire**

Dr. Courtney Flint  
Michael Braitto  
Camilla Bottelberghe  
<https://goo.gl/5FLvUe>



### **Air Quality Survey Report**

Dr. Courtney Flint  
Michael Braitto  
Camilla Bottelberghe  
<https://goo.gl/eAKR4M>



**Smog Free Tower Design**  
Anellise Deters, Kaisa Forsyth  
Kristopher Jarrett & Philip Suiter

<https://goo.gl/vBPgnn>



**Automobile Hot Start vs. Idling Emissions**  
William Fullmer, Namoon Lee  
Yumiko Sandstrom, & Jamie Vawdrey

<https://goo.gl/JzaENh>

## Citywide Tree Plan



**Citywide Tree Plan**  
Dr. Robert Schmidt

<https://goo.gl/QN872T>

## GIS Story Maps



**Logan City Trails Story Map**  
Katelyn Boyer

<https://goo.gl/dnbBhD>



**Logan City Parks Story Map**  
Leland Bennion

<https://goo.gl/iauX3Q>



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## Land Planning for Residential Development



### Team 1

Seth Vance, Nathan Clarke,  
& Bryant Avalos

<https://goo.gl/x4E1PG>



### Team 2

John Locke, Bryan Wilson  
Jillian Virgi, & Myron Benally

<https://goo.gl/mqpUHp>



### Team 3

Nicolette Maire,  
Jason Parkinson & Nolan Baker

<https://goo.gl/GG88Wd>



### Team 4

James Hansen, Megan Criss  
D. Mark Jensen & Po Yu Ho

<https://goo.gl/kVILN0>



### Team 5

Albert Severe, Jared Hiatt,  
Johan VanZeben, & Yuning Fang

<https://goo.gl/QedO49>



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## Analysis of Logan City's Recycling Program



### **Rural Recycling Cost-Benefit Analysis**

Darren Bingham, Kristopher Jarrett,  
Adam Jones, & Colby Richins  
<https://goo.gl/2F0Jb1>



### **Alternative Rural Recycling Options In Cache Valley**

Ethan Pickett, Jeff Seedall  
Jacob Lambert & Nathan Booth  
<https://goo.gl/YmKqx0>

## Urban Deer Management



### **Survey Information Letter & Questionnaire**

Dr. Mark Brunson  
<https://goo.gl/BN5ebX>

## Neighborhood Improvement



### **Hillcrest Neighborhood Survey**

Dr. Jessica Lucero  
<https://goo.gl/f2eTNY>

## Logan City's After-School Program



### **Assessing Cultural Competence among After-school Program Workers in Logan, Utah**

Britney Lux, Whitney Jorgensen  
McKenna Wallentine  
<https://goo.gl/vEqExA>



