



COLD CLIMATE HOUSING RESEARCH CENTER

CCHRC

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Final Report to
Alaska Department
Of
Environmental Conservation

Green Infrastructure Solutions in Fairbanks, AK

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Submitted to:
Christopher Hunt
Dept. of Environmental Conservation
Box 11180
Juneau, AK 99811-1800
Phone: 907-465-5032
Email: chris.hunt@alaska.gov

Cold Climate Housing
Research Center

P.O. Box 82489
Fairbanks, AK 99708

Telephone: 907.457.3454
Fax: 907.457.3456

Green Infrastructure Solutions in Fairbanks, AK

By: Michael R. Lilly¹, Jackson Fox², Jack Hébert³, Kristie Hilton¹

Introduction

Initial steps have been taken to address urban runoff through the Fairbanks Storm Water Management Program (FSWMP). The program is managed collectively by the Fairbanks North Star Borough (FNSB), City of Fairbanks (COF), City of North Pole (CONP), University of Alaska Fairbanks (UAF), and Alaska Department of Transportation and Public Facilities – Northern Region (ADOT&PF). This program has developed the initial steps of appropriate ordinances, education efforts and Best Management Practices (BMPs). The initial stages of developing strategies dealt with drainage structures (such as the piped storm drain system, ditches, culverts, etc.), snow removal and other municipal storm water management activities, illicit discharge detection and elimination efforts, and preventative strategies associated with new construction and re-development activities. Recent efforts to reduce storm water runoff from homes include development of a Green Infrastructure Resource Guide for Fairbanks (Heinchon and Murray, 2010).

This project has demonstrated three different green infrastructure (GI) technologies with existing material to help provide examples to businesses and homeowners on how to reach the potential for zero discharge. These innovations include rainwater catchment and re-use, green-roof systems, and retention ponds. The areas and management measures that are applicable for these green building technologies were developed through a mapping effort, led by the COF. The maps and mapping strategy will help influence future land-use planning strategies and policies. The outcomes of this project will help provide additional BMP options and management measures for the FSWMP. Successful outcomes have the potential to lower the demand on the storm drain system and improve water quality in local impaired surface-water bodies through treatment (infiltration and filtration) of polluted storm water runoff. The project team brings together Fairbanks storm water managers, technology providers, designers, and educational experts to help ensure positive outcomes from this project.

Applicable Areas and Management Measures for Green-Building Technologies

This task was led by the COF and includes input and review from the committees associated with the FSWMP. Areas within the Fairbanks Urbanized Area were identified in map form that may be able to use each of the three green-building technologies being considered by this program. This includes snowmelt/rainwater catchment and re-use, green-roof systems, and retention ponds. Example area considerations include zones that may not be ideal candidates for certain technologies, lot size constraints for retention ponds, and commercial facilities and density considerations. Management measures for the green-building technologies are primarily to identify the areas where the highest need exists to help the FSWMP, developers, designers, engineers, and the public evaluate how to use the technologies to guide future development and redevelopment efforts. Architects and building engineers will consider the building specific design objectives when considering how to implement various technologies into the characteristics of the building and occupation design goals.

¹GW Scientific

²City of Fairbanks

³Cold Climate Housing Research Center

The COF with active storm drain systems, defines the study area for this project (Figure 1). Other areas of the city are served by ditch drainage systems, which allow some infiltration of water into the local groundwater system. This study area was then broken down into three different land-use categories (Figure 2), residential, commercial/public exempt, and industrial. This designation was used to help characterize different zones where GI runoff-reduction solutions could target certain groups. Examples would include residential areas having a rain-barrel awareness education program, and an industrial area educational program on applications of retention ponds. These zones were then broken down into areas that would best be served by GI systems (Figure 3), by development of the below ranking system (Figure 4).

Subdivision Ranking Scheme

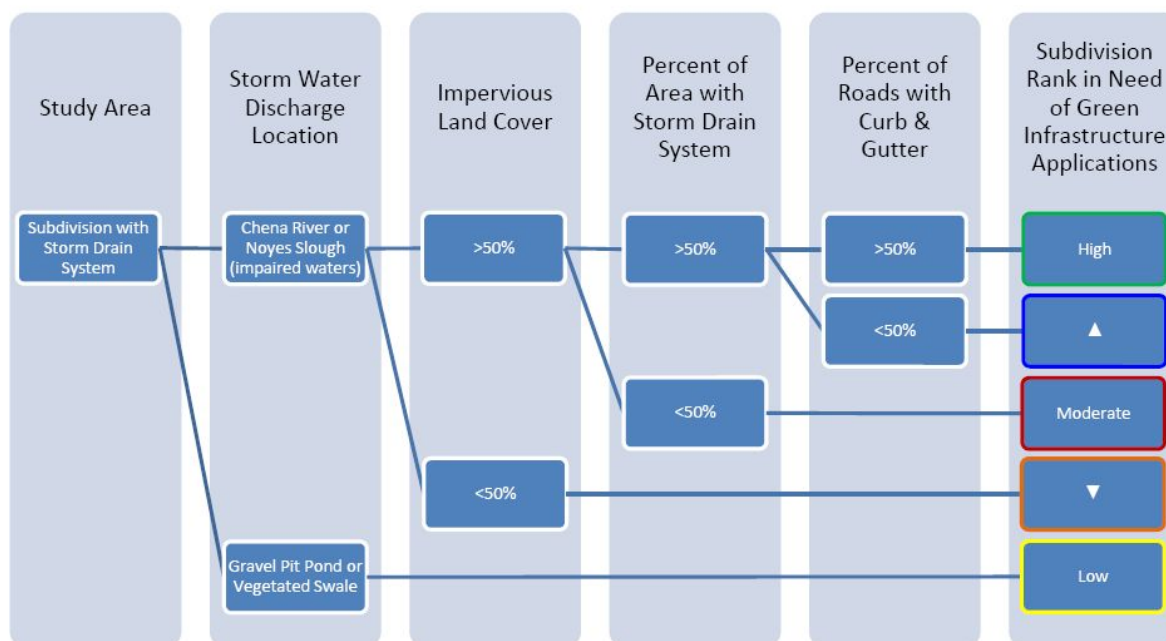


Figure 4. Ranking scheme to develop priorities for GI solutions that would best help the current and future operations of the Fairbanks storm-drain system and help protect impaired surface-water bodies.

The ranking system first considered if the area was served by the storm drain system. It then took into account the discharge location. Parts of the storm-drain system that were discharged to gravel pits, vegetated swales, or ditches were ranked low as there was not a direct input to impaired surface-water bodies. The next level of ranking was the degree of impervious land cover. If the value was less than 50%, the category received the lower ranking. If it was higher than 50%, it ranked higher and was then evaluated for the relative percent of the area served by a storm drain system. Areas with less than 50% of the area served by storm drains were classified as moderate. Areas with greater than 50% of the area served by storm drains, went on to the next ranking based on percent of roads with curbs and gutters. Those areas with more than 50% served by curbs and gutters were given the highest ranking as a subdivision (or sub area). The results of this ranking system (Figure 3) helps identify which areas served by the storm-drain system would be the highest priority for developing educational programs, site demonstrations, and other GI applications that would reduce potential runoff to the storm-drain system and downstream water bodies.

Green Infrastructure Examples

The GI infrastructure examples include snowmelt/rainwater catchment and re-use, green-roof systems, and retention ponds. The following examples are located at the Cold Climate Housing Research Center Research and Test Facility (RTF), located in Fairbanks, Alaska. The RTF is a LEED® Platinum facility that helps demonstrate a zero-runoff combination of GI technologies. Snowmelt and rainfall are collected into gray-water tanks in the facilities basement. This water is re-used for toilets, outside faucets, and fire suppression systems (Figure 5). The rainwater collection tanks have to be refilled with delivered well water when they run dry. Applications of gray-water use need to take into account required volumes when planning a system.



Figure 5. Two 1,500 gallon tanks are used to collect snowmelt and runoff, which are then used for gray-water applications, including toilets and outside faucets for watering rain-garden areas.

The green roof systems at the RTF are over the North and South research labs (Figure 6). Water runoff from the two roofs is measured before it drains into a runoff-retention pond located on the east side of the facility. The green roofs provide the users of the facility green spaces to meet in the summer, garden growing areas, and reduce the impact of snowmelt and summer precipitation. The water from the green roofs could be re-used with some added filtration and water treatment. The application of green-roofs is dependent on the type of building being considered, along with the uses of the building and integration of the green roof into the resident's needs. The retention of water during summer precipitation would help reduce the runoff from buildings to storm-drain systems.

The RTF also has a retention pond (Figure 7), which also serves as a natural wetland area. The pond collects both snowmelt and summer rainfall runoff from the facility. The bottom of the pond is just below seasonal low groundwater levels. There is additional information available at the CCHRC facility and online at www.cchrc.org. Tours are given throughout the year and a library is maintained on relevant publications for the public, engineers, and architects who would like to learn more about implementing GI technologies.



Figure 6. Green Roof GI solutions on the North and South research labs at the RTF.



Figure 7. Retention Pond, located on east side of facility.

When designing GI solutions and water-reuse applications, precipitation data become important. Current Best Management Practices (BMP's) in the FSWMP (Figure 8) require estimates of 10-year, 1-hr duration events to help manage runoff peaks. GI and water re-use though can be dependent on minimal precipitation volumes of water reuse is to be effective. Figure 9 shows some of the recent viability in the Fairbanks area in summer precipitation patterns. Green roofs or water re-use plans may need to have solutions for dry summers so vegetation does not die or, re-use applications (such as toilets) are not impacted.

Category	Design Requirement	Purpose	Criteria
Temporary BMPs	Erosion Control	Limit erosion from the construction site to the maximum extent practicable.	All erosion control BMPs shall be designed to handle the 2-year, 6-hour duration storm event without failure of the BMPs.
	Sediment Control	Remove sediment from runoff from the construction site to ensure the water quality of receiving water(s) will not degrade.	Provide sediment control for all down slope boundaries (i.e. silt fence, vegetative buffer strips, etc.) and, as necessary, provide for storage of runoff.
Permanent BMPs	Runoff Volume	Limit post-development peak runoff to 5% over pre-development peak runoff.	Runoff calculations shall be based on the 10-year, 1-hour duration storm event.
	Runoff Quality	Treat first flush pollutant loading.	Treat the initial 0.5 inch of runoff from each storm event.
		Treat runoff after first flush.	Provide treatment at a minimum rate of 0.005 inches per minute.

Figure 8. FSWMP BMP requirements related to temporary and permanent projects. Both runoff volume and water quality are design requirements for permanent stormwater control (FSWMP Guide).

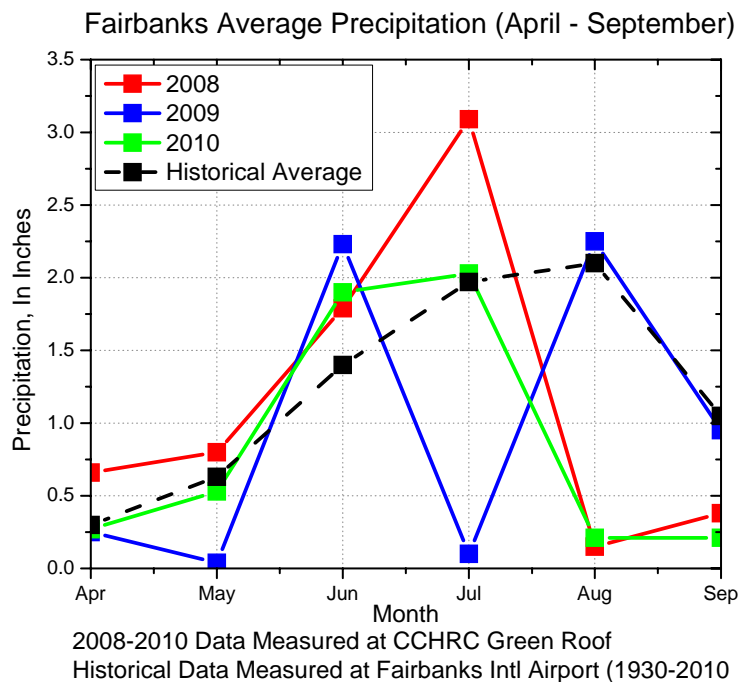


Figure 9. Example monthly precipitation data for the Fairbanks area.

Homeowner System Evaluation and Vendor Surveys

Selected test applicants of the “Green Infrastructure Resource Guide for Fairbanks, Alaska” project were interviewed to follow up on their application of green infrastructure solutions for the home scale. Information was collected from homeowners willing to participate in the project. Information on the current configuration of their rainwater catchment and other systems was collected to help illustrate how they are working and collect “lessons learned” information from the homeowners.

Homeowner Survey Summary

The following highlights are from the Homeowner surveys. All the field forms from the homeowner surveys are included in the back of this report in the appendix. A blank example form is also included.

- All recipients seemed pleased with the results of their project and many noticed significant improvements in drainage issues around their homes/streets.
- The most difficult part of each project appears to have been the accessibility and affordability of the items needed to complete their project.
- One homeowner said that she had to do a lot of research before being ready to work on her project and suggested making this information more accessible to people and perhaps offering a step by step guide (with photos) for other homeowners considering GI solutions at their home. The homeowner also suggested the creation of a “Why do this?” pamphlet that may get more people interested in installing systems at their home and perhaps advertising grant opportunities in water bills.
- Rain barrel winterization appears to be similar among homeowners who have them (draining the rain barrel, disconnecting gutter system) but it was stressed by one individual the importance of cleaning gutters at the end of the season so as to be ready to collect water at soonest opportunity in the spring.

Vendor Survey Summary

The following highlights are from the Vendor surveys. All the field forms from the vendor surveys are included in the back of this report in the appendix.

- Recycled olive/pickle/pepper jars (with or without spigots) are sold by Plant Kingdom and Alaska Feed Company (prices range from \$60-\$100)
- Rain catchment systems are sold by Spenard Builder Supply, Lowe’s, Home Depot, Holm Town Nursery, Samson True Value Hardware, and Alaska Feed Company (prices range from \$109-\$250)
- Minimal interest was seen at Holm Town Nursery (12-15 sold in 2 years), Samson True Value Hardware (26 sold in 2 years), Spenard Builder Supply (17 in 2 years), and Lowe’s (50 in 2 years).
- More interest was seen at Alaska Feed Company (approximately 150 sold in 2 years), Plant Kingdom (under 100 sold in 2 years), and Home Depot (approximately 100 sold in 2 years).
- Only Home Depot was aware of grant program, from discussions with one of the program participants.

- Suggestions for increasing popularity include: more advertising/sales, website with additional information (benefits of collecting and using collected water, installation tips, etc) and local demonstrations.
- Samson True Value Hardware, Plant Kingdom, and Alaska Feed Company showed particular interest in helping the City expand popularity in the community.
- All in all, about 450 rain barrels have been sold since the start of the COF program to promote and educate homeowners on GI solutions and benefits.

Local vendors were also contacted to obtain information on the availability of supplies and community interest in the products they sell.

Community Outreach- Workshop

A workshop was held for the community to introduce the different technologies and get end-user feedback on potential issues and education needs. The maps were well received and input on potential applications of the maps for targeting education programs, input to vendors who are providing GI products, and planning uses were highlighted. Additional topics included how parking areas were the most critical water quality concern, that the disposal of gray-water from cabins was becoming a growing concern, and that there were both large scale and small scale GI needs.

ACWA workshop attendees included:

Chris Darrah, Shannon & Wilson
 Chandra McGee, Alaska Department of Environmental Conservation
 Bob Hensley, US Fish & Wildlife Service
 Kristie Hilton, Geo-Watersheds Scientific
 Jackson Fox, City of Fairbanks
 Mike Musick, Fairbanks North Star Borough Assembly
 Michael Lilly, Geo-Watersheds Scientific

An additional presentation was also given at the Northern Region, Alaska Section-AWRA December Brown Bag meeting. This presentation helped reach additional people and get input to the project team.

Summary

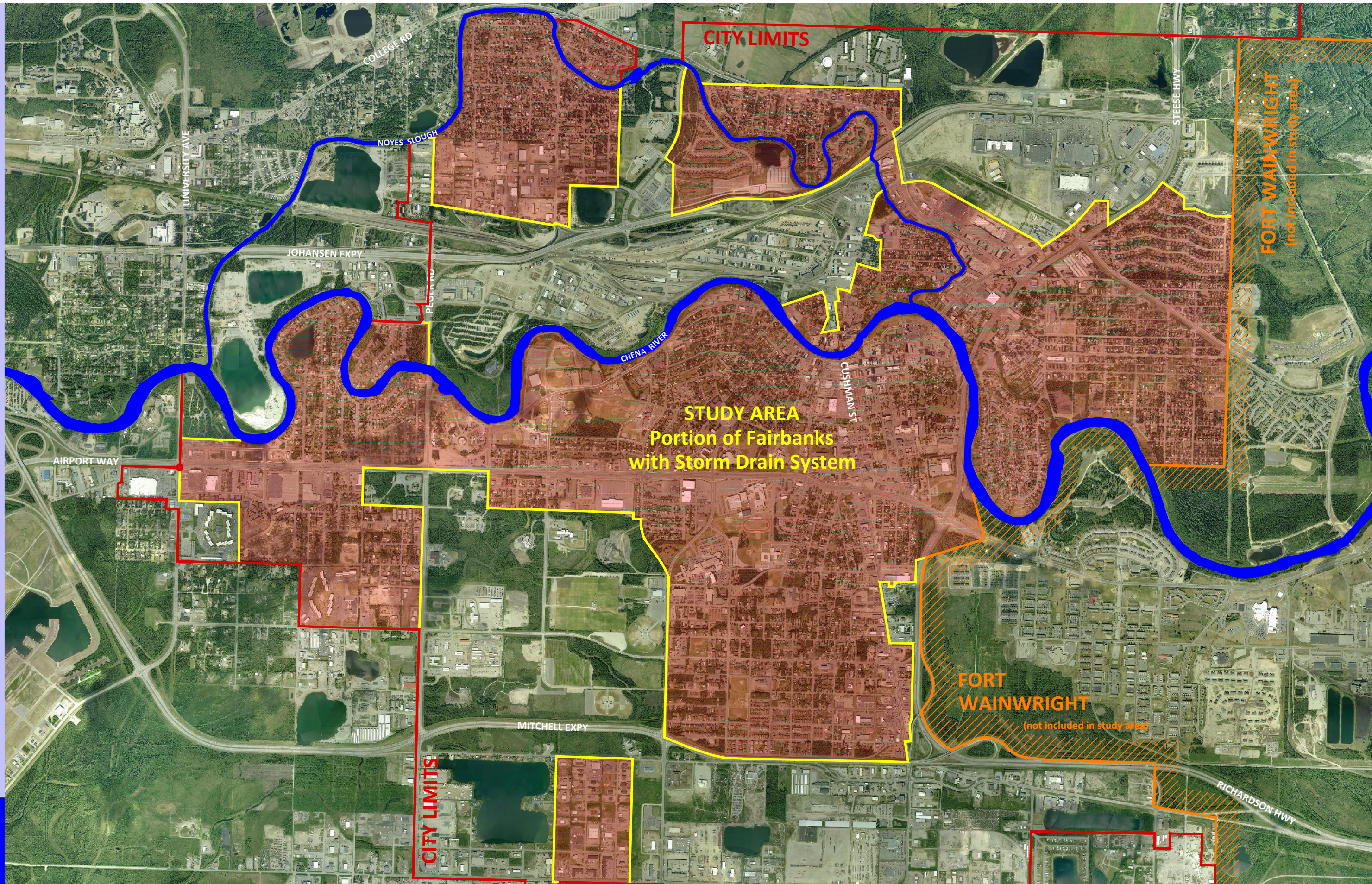
This project has helped develop maps showing where GI technologies will have the highest potential benefit for the COF storm-drain system and the receiving water bodies. These water sources include the Chena River and Noyes Slough, which are also on the impaired water bodies list. Three different GI technologies were demonstrated at the CCHRC RTF with existing material to help provide examples to businesses and homeowners on how to implement these solutions at the homeowner and small business scale. These innovations include rainwater catchment and re-use, green-roof systems, and retention ponds. A survey of selected residents and vendors of rain barrel supplies was conducted with lessons learned and other information included in this report. The maps and mapping strategy will help show where these solutions have the best potential impacts and influence future land-use planning strategies and policies. The outcomes of this project will help provide additional BMP options and management measures for the FSWMP. Successful outcomes have the potential to lower the demand on the storm drain system and improve water quality in local impaired surface-water bodies through

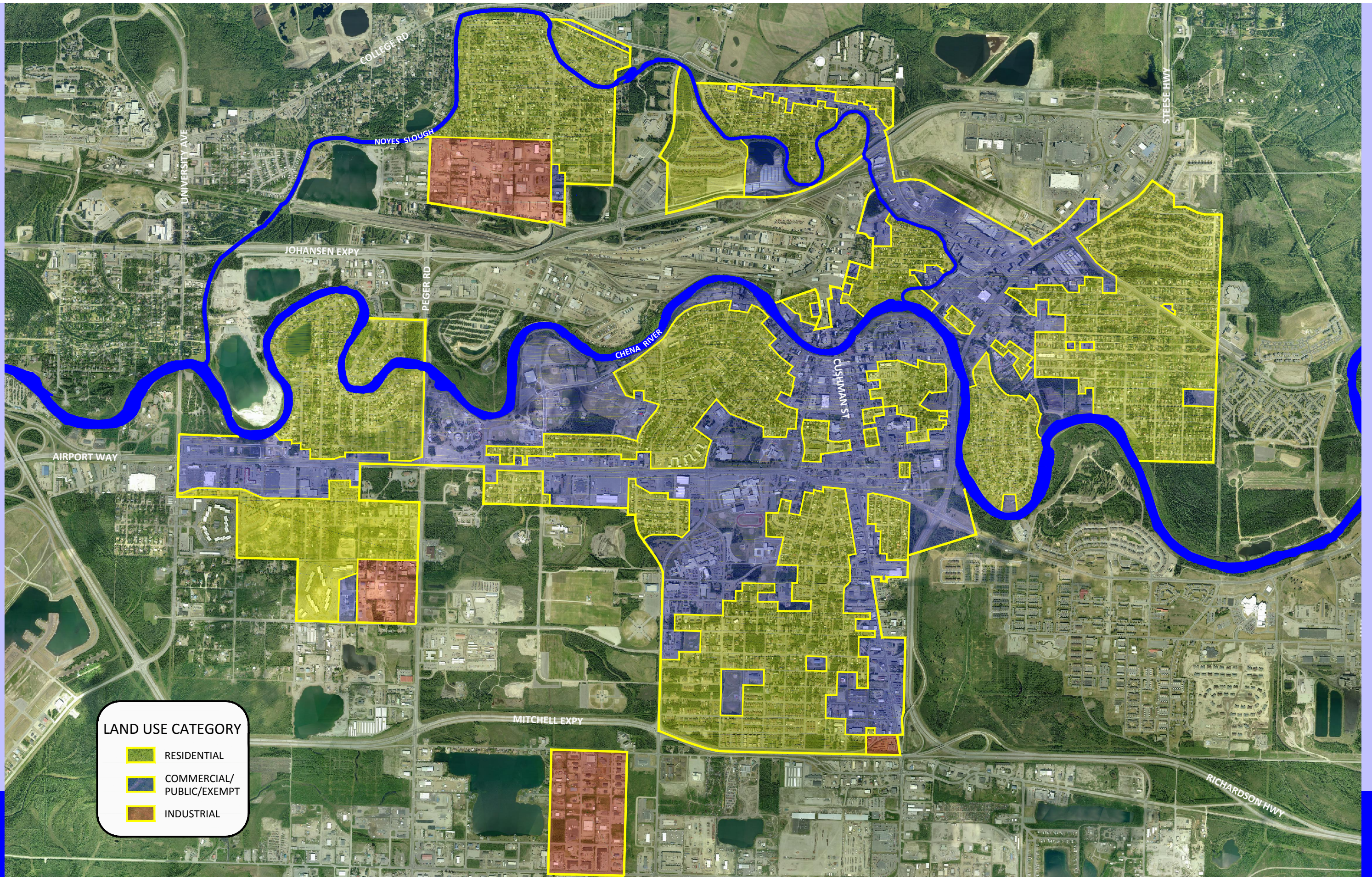
treatment (infiltration and filtration) of polluted storm water runoff. The project team brought together Fairbanks storm water managers, technology providers, designers, and educational experts to help ensure positive outcomes from this project.

References

Heinchon, S., Murray, J. (2010). Green Infrastructure Resource Guide for Fairbanks, AK. Fairbanks, AK: City of Fairbanks. 50 pp.

City of Fairbanks & City of North Pole. 2009. Fairbanks & North Pole Storm Water Management Program Guide. September 2009, 1st edition. Fairbanks North Star Borough, AK. 27 pp.





GREEN INFRASTRUCTURE OPPORTUNITIES



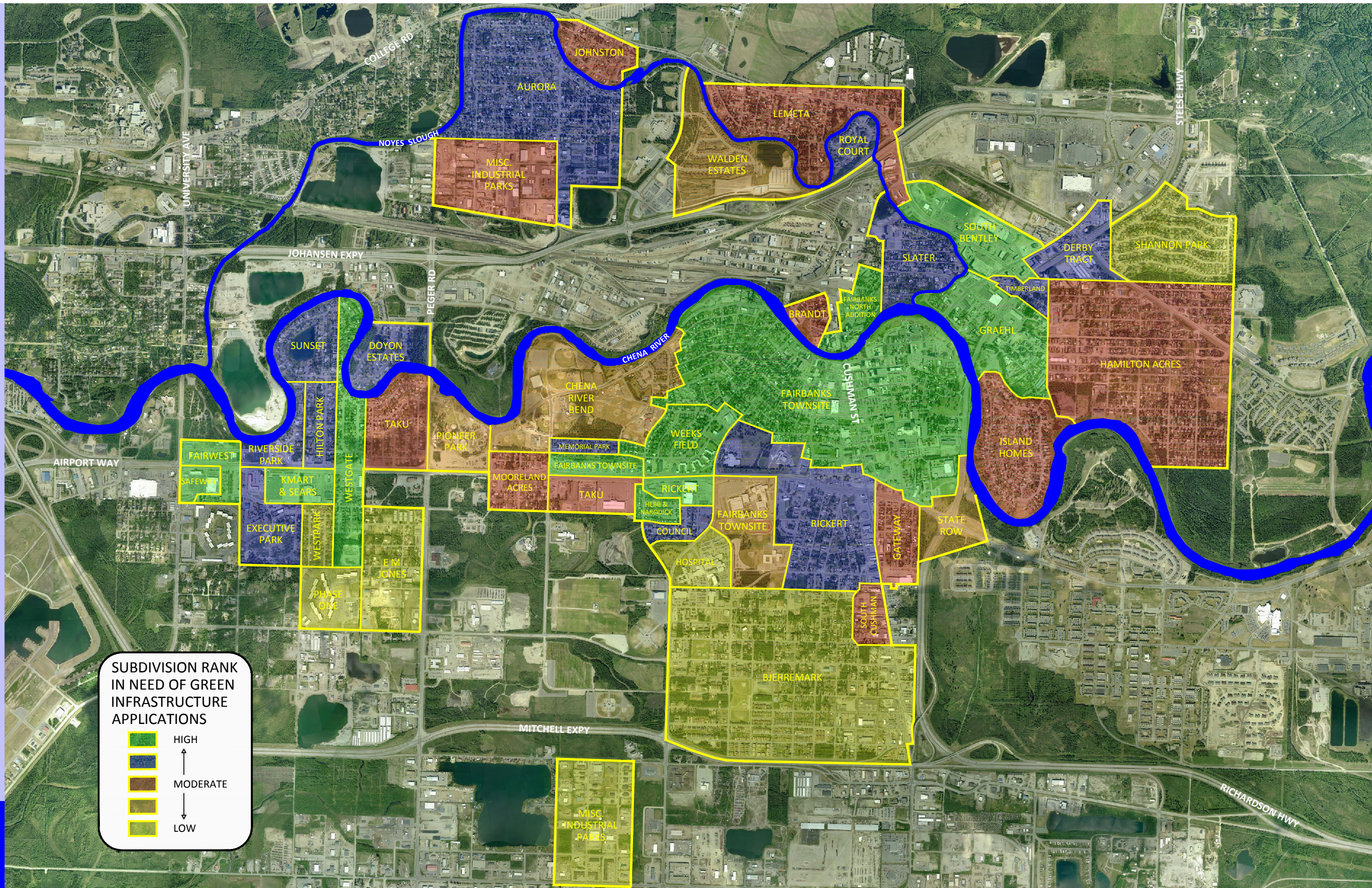
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Appendices – Home Owner Surveys and Vendor Rain-Barrel Surveys

Green Infrastructure Project- Homeowner Survey Example:

General Information

What green infrastructure project did you choose under the City's reimbursement program? What were you hoping the project would accomplish (i.e. provide water storage for your garden, resolve a drainage issue, etc.)?

Were you happy with the results of your project?

Were there any particular problems associated with installation or effectiveness of this project?

Did the installation of your system affect any other drainage issues you may have had at your home?

Where did you get the necessary materials?

May we take photos of your project and post them on our website?

Did friends/family/neighbors see the system and decide to install similar designs at their own homes?

Do you know of any friends/family/neighbors that have similar designs already installed?

Can you recommend potential contacts that may have additional information related to the effectiveness of green infrastructure projects?

Rain Barrel Information

How many rain barrels did you originally plan on installing?

Did you expand the system for any reason? If so, why and by how many barrels?

Did the rain barrels make you self sufficient in regards to your watering supply needs?

Did you use mosquito pellets? If so, where did you get them and how well did they work?

How do you prepare your rain barrels for winter?

Did you have any issues last spring or at the beginning of summer with icing or freeze ups?

Do you have any suggestions on how to improve the design or operation of a rain barrel catchment system?

Additional Information

Green Infrastructure Project- Homeowner Survey: Griek

General Information

What green infrastructure project did you choose under the City's reimbursement program? What were you hoping the project would accomplish (i.e. provide water storage for your garden, resolve a drainage issue, etc.)?

Grass mat- Hoping to restore lawn and provide stable ground for parking on.

Were you happy with the results of your project?

Yes, very.

Were there any particular problems associated with installation or effectiveness of this project?

Most difficult part was making the surface level before installing the grass mat, needed fill dirt and even more pins than originally suggested (instead of every 3', pins were installed every 18"). It was also suggested that this project would work best if installed right after break up. When installing in the fall, may need to re-seed lawn several times before good grass growth is seen.

Did the installation of your system affect any other drainage issues you may have had at your home?

No, other issues exist but will need to be addressed with dry wells.

Where did you get the necessary materials?

Grass mat was ordered online (only available in 90' rolls, approx. \$600), purchased 6" U-pins from Lowes because it was cheaper than getting them online.

May we take photos of your project and post them on our website?

Yes

Did friends/family/neighbors see the system and decide to install similar designs at their own homes?

There was lots of interest from friends/neighbors, but not sure if anyone decided to do the same thing. Homeowner said they discussed the project with one neighbor in particular and will probably give them the remaining grass mat material to try at their own house.

Do you know of any friends/family/neighbors that have similar designs already installed?

No.

Can you recommend potential contacts that may have additional information related to the effectiveness of green infrastructure projects?

No.

Rain Barrel Information (Not part of reimbursement program, already in place)

How many rain barrels did you originally plan on installing?

1-really large.

Did you expand the system for any reason? If so, why and by how many barrels?

No.

Did the rain barrels make you self sufficient in regards to your watering supply needs?

Yes.

Did you use mosquito pellets? If so, where did you get them and how well did they work?

No. When mosquito larva were seen, they covered the rain barrel until they died off.

How do you prepare your rain barrels for winter?

Drain rain barrel, disconnect down spout, re-seal, and leave out all winter.

Did you have any issues last spring or at the beginning of summer with icing or freeze ups?

No, because the top of the rain barrel is open.

Do you have any suggestions on how to improve the design or operation of a rain barrel catchment system?

It would be ideal to add soak hoses so one could gravity feed the water to their garden.

Additional Information

Photos



Figure 1. Photo of area where grass mat was installed. Note: Removable fencing was installed after grass mat installation, but when removed, yard is still accessible for winter parking.

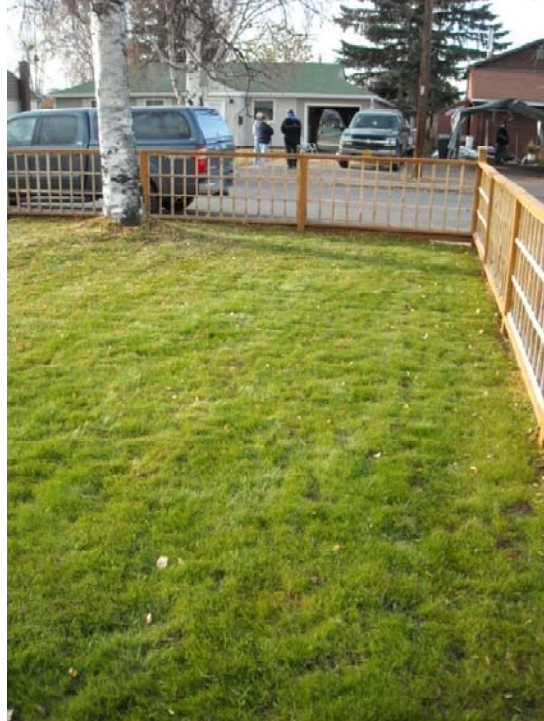


Figure 2. Additional photo of area where grass mat was installed.



Figure 3. Photo of rain barrel located in the rear of the homeowners house. Note: This rain barrel was not part of the reimbursement program and was already on site.

Green Infrastructure Project- Homeowner Survey: **Hayden (No Funding)**

General Information

What green infrastructure project did you choose under the City's reimbursement program? What were you hoping the project would accomplish (i.e. provide water storage for your garden, resolve a drainage issue, etc.)?

Permeable pavers – Hoping to resolve general drainage issues because garage is lower than street.

Were you happy with the results of your project?

Not for own home due to sloped driveway (too slick in winter), but yes on separate project which used these pavers on flat surface.

Were there any particular problems associated with installation or effectiveness of this project?

No, easy to install and look good.

Did the installation of your system affect any other drainage issues you may have had at your home?

Not applicable because pavers were not installed at residence, but homeowner stated that he had extreme ponding in his yard, driveway, and street because there is no storm water system on the street behind his house. He installed several dry wells near his garage and it actually resolved not only the issues on his property but on the street as well. He is thinking about using foam plugs this year to block up the dry wells until spring and would like to install similar dry wells and a culvert near the street.

Where did you get the necessary materials?

Online at Vast Pavers.

May we take photos of your project and post them on our website?

Not applicable, but homeowner sent photos of other project site in case we wanted to use them.

Did friends/family/neighbors see the system and decide to install similar designs at their own homes?

No, but a neighbor decided to try to resolve his own ponding issues by filling in low spots in his yard, Mr. Hayden said now all of the neighbors water comes over to his house as well so he is hoping to install even more dry wells.

Do you know of any friends/family/neighbors that have similar designs already installed?

No.

Can you recommend potential contacts that may have additional information related to the effectiveness of green infrastructure projects?

No.

Rain Barrel Information

How many rain barrels did you originally plan on installing?

N/A

Did you expand the system for any reason? If so, why and by how many barrels?

N/A

Did the rain barrels make you self sufficient in regards to your watering supply needs?

N/A

Did you use mosquito pellets? If so, where did you get them and how well did they work?

N/A

How do you prepare your rain barrels for winter?

N/A

Did you have any issues last spring or at the beginning of summer with icing or freeze ups?

N/A

Do you have any suggestions on how to improve the design or operation of a rain barrel catchment system?

N/A

Additional Information

Mr. Hayden originally received approval for a \$500 grant through the reimbursement program but was not able to use it for the pavers as he had planned because of the risk associated with installing them on a driveway that sloped to his house. He received approval for another \$500 grant through the Soil and Water Conservation District to continue with his dry well installation (mentioned above), but was not able to get anything done yet. He also applied for the Arctic Innovation Award System grants and called his street side dry well system a “subarctic storm water dry well”, which was not approved for funding but he is going to continue trying and said he’d be willing to spend his own money to install them if necessary.

Photos

The below photos were taken at a second job site, not the homeowner’s house as originally planned. Mr. Hayden said the permeable pavers work great on flat surfaces and the contractor that installed them said they were easy to cut and use, and look great when installed. He used the pavers on the deck and roof tops (green roof designs) of this house. They are still slippery in the winter, but he is most interested in finding out how well they do come spring.





Green Infrastructure Project- Homeowner Survey: **Martin**

General Information

What green infrastructure project did you choose under the City's reimbursement program? What were you hoping the project would accomplish (i.e. provide water storage for your garden, resolve a drainage issue, etc.)?

Rain barrels- Hoping to catch enough water to use around the yard and to help reduce runoff.

Were you happy with the results of your project?

Yes, very.

Were there any particular problems associated with installation or effectiveness of this project?

Most difficult part was finding the necessary fittings. Homeowner purchased a kit online for connecting rain barrels, then had to take the parts around town to get the necessary fittings to make her own, which was very time consuming.

Did the installation of your system affect any other drainage issues you may have had at your home?

Yes, particularly on the backside of the house where water was draining against the house and threatened to erode her foundation. Not an issue anymore.

Where did you get the necessary materials?

Rain barrels: Home Depot; Rain barrels, outlets: Alaska Feed

May we take photos of your project and post them on our website?

Yes

Did friends/family/neighbors see the system and decide to install similar designs at their own homes?

Showed the system to her sister and brother-in-law who plan to install something similar at their own home in Oregon. Other neighbors/locals commented on how cool the idea was, but homeowner is not sure if they would do the same thing.

Do you know of any friends/family/neighbors that have similar designs already installed?

No really, but suggested we contact Calypso Farms to ask them about their water collection system.

Can you recommend potential contacts that may have additional information related to the effectiveness of green infrastructure projects?

Not really, but homeowner has a friend in Australia who has a grass driveway which is supposed to be an excellent way of controlling drainage issues. By using a mixture of grass and chamomile, she said the results work better than the permeable pavers she heard about.

Rain Barrel Information

How many rain barrels did you originally plan on installing?

1-2 originally, with the reimbursement program she was able to add more.

Did you expand the system for any reason? If so, why and by how many barrels?

Yes, because she needed more water to use, the original ones didn't collect enough. End result- 5 rain barrels total.

Did the rain barrels make you self sufficient in regards to your watering supply needs?

Yes, for plants, garden, and greenhouse, but not enough to water all sides of the grass. The pressure was also only good with the soaker hoses that were nearest to the rain barrels.

Did you use mosquito pellets? If so, where did you get them and how well did they work?

No, because the rain barrels were covered, sealed systems.

How do you prepare your rain barrels for winter?

Drain rain barrel, disconnect down spout, and remove leaves from gutters (so know issues when spring melt occurs).

Did you have any issues last spring or at the beginning of summer with icing or freeze ups?

No, disconnecting the down spout and getting the leaves out of the gutter (to prevent bird nesting), makes it so all you have to do is reconnect it when you're ready to collect water again.

Do you have any suggestions on how to improve the design or operation of a rain barrel catchment system?

Level ground is extremely important and may be overlooked. Homeowner said she had to do a lot of research before she was ready to install the system and suggested a step by step guide on our website with drawings to help someone figure out how to install the system themselves. Note: She took step by step photos if we're interested in them.

Additional Information

More website information would be helpful, maybe develop a "Why do this?" packet to get more people excited about these kinds of projects, perhaps more advertising (send program information out with water or trash bills?). Homeowner has also requested that we send her our website information when everything is up and running.

Photos

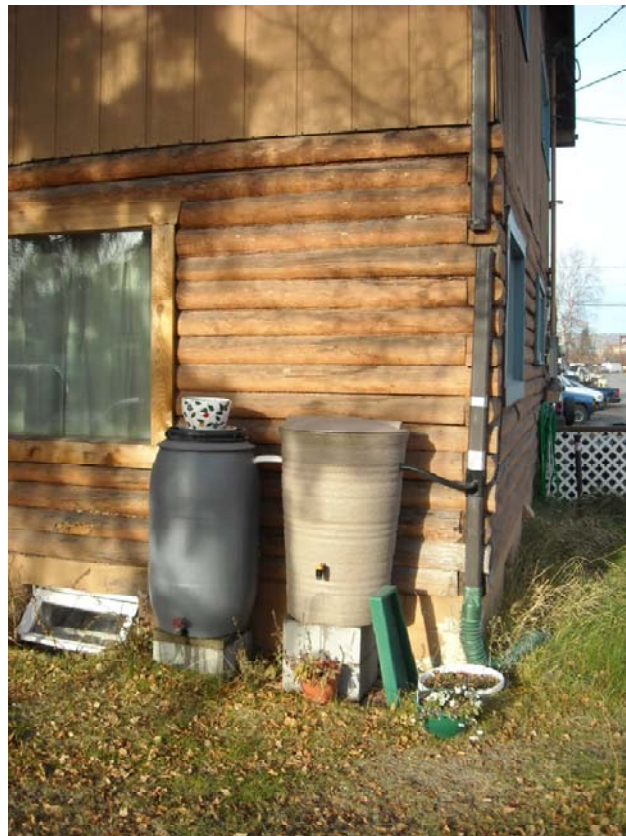


Figure 4. Photo of rain barrels in front of house. Already winterized with disconnected drain spout.



Figure 5. Photo of rain barrels at backside of house where water draining against house was an issue.



Figure 6. Rain barrels at backside of house, and water diversion set up that had previously been used to control flooding.



Figure 7. Remaining section of water diversion system that was previously used to help water get to the storm drain system.



Figure 8. Additional water collection system installed to increase available water. Homeowner used a trash can with a hole cut into the lid.

Green Infrastructure Project- Vendor Survey: [Alaska Feed Company](#)

General Information

Business Name

[Alaska Feed Company, Shelly \(employee\), Steve \(manager\)](#)

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, 3 types: 1) 50 gallon recycled olive/pickle jar, no spigots, \$60; 2) 55 gallon recycled olive/pickle jar, 1 spigot, \$65; 3) 55 gallon rain catchment system w/ 2 spigots for connecting multiple barrels, \$140

How many have you sold in the past 2 years?

50 gallon recycled jar w/ no spigots, sold 58 in 2010 and 55 in 2011. Have only carried 1 spigot version since May 2011 and have sold 30, uncertain of newest system.

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

[Kits/barrels only, also sell livestock tanks which may be used as water catchment system](#)

Has there been any customer feedback that would be beneficial to share?

[Not really, but kits seem to make installation easier for customers, company was unaware of the grant offered by the City](#)

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

[Providing more information to potential users could help improve popularity. For example, explaining to people that using capture water is better for their gardens because it is water that is free from the chemicals used to purify City water.](#)

Are you aware of any other businesses in Fairbanks that sell rain barrels?

[No](#)

Additional Information

[Steve, the manager at Alaska Feed Company, said he was interested in finding out when the website was up and running and asked to be emailed the link when ready \(\[steved@alaskafeed.com\]\(mailto:steved@alaskafeed.com\)\). Also mentioned they would be happy to help in any way they can.](#)

Green Infrastructure Project- Vendor Survey: **Holm Town Nursery**

General Information

Business Name

Holm Town Nursery, 451-8733

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, 2 kinds- one is a 50 gallon rain barrel wizard, the other is a compost wizard (composter on top, rain barrel on bottom), been selling for a couple years

How many have you sold in the past 2 years?

12-15

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Kits w/ rain barrel and attachment for spigot, no adaptors, regular price \$250.00

Has there been any customer feedback that would be beneficial to share?

Customers want, but can't find, adaptors for gutters, interviewee had not heard about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

More advertising and cheaper cost is necessary to improve popularity

Are you aware of any other businesses in Fairbanks that sell rain barrels?

Samson's Hardware

Additional Information

Interviewee has not seen much interest in rain barrel system and is unsure as to whether or not they will continue to carry them.

Green Infrastructure Project- Vendor Survey: Home Depot

General Information

Business Name

Home Depot, suzun75@yahoo.com

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, Fiskar (Rainwater Harvesting System, see attached), have been selling for 2-3 years

How many have you sold in the past 2 years?

Approximately 100

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Kits w/ rain barrel, lid, diverter, and spigot, regular price \$125.00

Has there been any customer feedback that would be beneficial to share?

No, rain barrels have ever come back, assumes customer's satisfaction. Interviewee remembers talking with Peggy Martin when she was installing her rain barrels, was first time she had learned about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

More advertising is necessary to improve popularity and a website with additional information may help in the ease of installing a system

Are you aware of any other businesses in Fairbanks that sell rain barrels?

Local greenhouses

Additional Information

Home Depot has a garden club that is free to sign up for (homedepotgardenclub.com/join) and offers coupons and discounts to members. At one point, offered \$20 off rain barrels to members of the garden club. Suzun (interviewee) would like to be notified when the website is up and running (for personal use, has rain barrel with pump at own home).



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Fiskars Tuscany 57-Gallon Rainwater Harvesting System

Model # 5997000018 Internet # 100863335 Store SKU # 783259

(36) [Write a Review](#)

\$93.75 /EA-Each

This item does not qualify for free shipping.

This item cannot be shipped to the following state(s): AK, HI

Description

The Fiskars Tuscany 57-Gallon Rainwater Harvesting System helps collect, store and dispense rainwater from your roof in style. This rainwater harvesting system includes a diverter kit and spigot.

- System helps collect, store and dispense rainwater from your roof
- Rotational molded LLDPE construction
- Decorative, barrel with a spice granite color can be nested
- Threaded spigot connects to garden hoses (hoses not included)
- Holds 57 gallons
- Includes diverter kit and spigot
- Eco Options : Eco Options
- MFG Brand Name : Fiskars
- MFG Model # : 5997000018
- MFG Part # : 59977000018

Specifications

- Assembled Depth (in.) : 26.5 in
- Assembled Height (in.) : 24.5 in
- Assembled Width (in.) : 39.75 in
- Capacity (gallons) : 57
- Diverter Kit Included : Yes
- Item Package Type : Wood Crate
- Manufacturer Warranty : 3 Year Limited Warranty
- Product Depth (in.) : 25.62
- Product Height (in.) : 29.75
- Product Type : Rain Collection/Barrel
- Product Type : Barrel
- Product Width (in.) : 24.5 in
- Returnable : 90-Day

Green Infrastructure Project- Vendor Survey: **Lowe's**

General Information

Business Name

Lowe's

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, Suncoast 50 gallon square rain catchment system with hose holes on top and bottom (hoses included), see attached example, been selling a couple years

How many have you sold in the past 2 years?

Approximately 50

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Rain catchment system \$109, miscellaneous components for retrofitting own system (garbage cans, hoses, etc)

Has there been any customer feedback that would be beneficial to share?

Has been minimal interest, customers seem to be looking for round systems rather than square, employee had not heard about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

Offer sales to increase popularity

Are you aware of any other businesses in Fairbanks that sell rain barrels?

No

Additional Information

None



Suncast 50-Gallon Taupe Plastic Rain Barrel

Item #: 304422 | Model #: RB502PK



50-Gallon Taupe Plastic Rain Barrel

- Latched lid is child and pet proof
- Includes drain hose for water usage and shut-off valve for hose hook-up
- Overflow hose doubles as a connector hose
- Debris filter keeps leaves and yard waste out of water

Green Infrastructure Project- Vendor Survey: **Plant Kingdom**

General Information

Business Name

Plant Kingdom, 457-5268

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, recycled 50 gallon olive/pepper jars, selling for 5-6 years

How many have you sold in the past 2 years?

Under 100

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Kits w/ rain barrel, screw on lid, and metal spigot, regular price \$80-\$100

Has there been any customer feedback that would be beneficial to share?

Received positive feedback, rain barrel's aren't fancy but work, interviewee had never heard about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

More advertising and perhaps local demos is necessary to improve popularity and a website with additional information may help in the ease of installing a system

Are you aware of any other businesses in Fairbanks that sell rain barrels?

Not aware of any

Additional Information

Interviewee said she would be happy to assist in increasing popularity if desired, wanted to know if it was okay to mention the program at the greenhouse and offered to provide space if someone wanted to hold some sort of demonstration on the installation or use of rain barrels.

Green Infrastructure Project- Vendor Survey: **Samson True Value Hardware**

General Information

Business Name

Samson True Value Hardware, Jennifer Towel, 451-3110

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, 54 gallon Rubbermaid fully assembled rain barrel, have been selling for a couple years

How many have you sold in the past 2 years?

16- 2010, 10-2011

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Fully assembled kits w/ screens, hose, and spigot for \$150.00 (see attached), also sells trash cans, hoses, and fittings if someone wanted to make their own

Has there been any customer feedback that would be beneficial to share?

No. Note: Interviewee had not heard about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

More advertising is necessary to improve popularity

Are you aware of any other businesses in Fairbanks that sell rain barrels?

Hawk's and Holm Town Nursery might

Additional Information

Interviewee was very helpful and excited, said to call if we needed more information or if she could help increase the popularity of rain barrels in Fairbanks. Asked to be notified when website is up and running (samsonak@alaska.net). Emailed photo of rain barrel, attached.

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1990 Phillips Field Road
Fairbanks, Alaska 99701-2707

P.O. Box 71270
Fairbanks, Alaska 99707-1270

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PRECISION TOOLS

KRYLON

WRIGHT TOOL

RAYOVAC

STANLEY

COOPER Tools

RIDGID

Coleman

Makita

CHICAGO
CUTLERY

www.samsonhardware.com

Green Infrastructure Project- Vendor Survey: **Spenard Builder Supply**

General Information

Business Name

Spenard Builder Supply

Do you sell rain barrels? If yes, what type/brand and for how long have you sold them?

Yes, plastic 50 gallon kit, been selling since March 2010

How many have you sold in the past 2 years?

17 (just rain barrel kits)

Do you sell rain barrel kits or components (i.e. for people to retrofit barrels/drums they already own)?

Rain Wizard kit which includes barrel, screen, spigot (\$130 for barrel, \$60 for stand), miscellaneous components for retrofitting own system (garbage cans, hoses, etc) and also sell a lot of wood whiskey barrels that people often use for rain barrels

Has there been any customer feedback that would be beneficial to share?

No, only one returned because it didn't do what they wanted (but employee was unclear as to why), employee had not heard about the grant offered by the City

Do you have any suggestions for improving the effectiveness, popularity, or ease of installing a rain barrel system?

More information on how to use rain barrels, how to install, the benefits of collecting water, and the benefits of using collected water (good for plants and rinsing hair) would help with popularity and ease of installing

Are you aware of any other businesses in Fairbanks that sell rain barrels?

Maybe Lowe's or Samson's

Additional Information

None