RAINWATER COLLECTIVE

Making rainwater harvesting easy, convenient & viable

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RAINWATER collective

A rainwater collection & support service for homeowners which captures rainwater and allows communities to contribute to City-wide water efforts in reclaiming water from a renewable source.

Consider this eventuality...

Cities like Chicago will run out of freshwater by 2050, even if we reach our net zero emission targets.

By 2050, the world's population is projected to near 10 billion, **increasing water demand by 55%.** And by then, two-thirds of people will live in cities.

40 out of 50 states expecting water shortages currently.

On average, each Chicagoan uses **80–100 gallons every day**, with the nation's estimated total daily usage topping 345 billion gallons.

In Chicago, the cost of water for the average family of four **nearly tripled** between 2007 and 2018.

We found out that

Chicago also has its own strange set of water problems.

Urban flooding

An average of $773 million in damage in Cook County during flooding every year

100-yr old water infrastructure

On an average there are 3,800 pipe breaks in Chicago, costing the city tens of millions of dollars incurring city debts due to more than a 100 year old pipes

False hopes on Lake Michigan

Contrary to popular belief, Lake Michigan is not an endless supply of water. Unless we focus on alternative water sources there could be water shortages in few areas by 2025

Sewer blockage during storms

Chicago has a combined sewer system that carries both toilet flushes and street runoff in the same pipes. Just one or two inches of rainfall can overwhelm this network

A sustainable lifestyle requires conscious actions to be taken but water isn't even on the list.

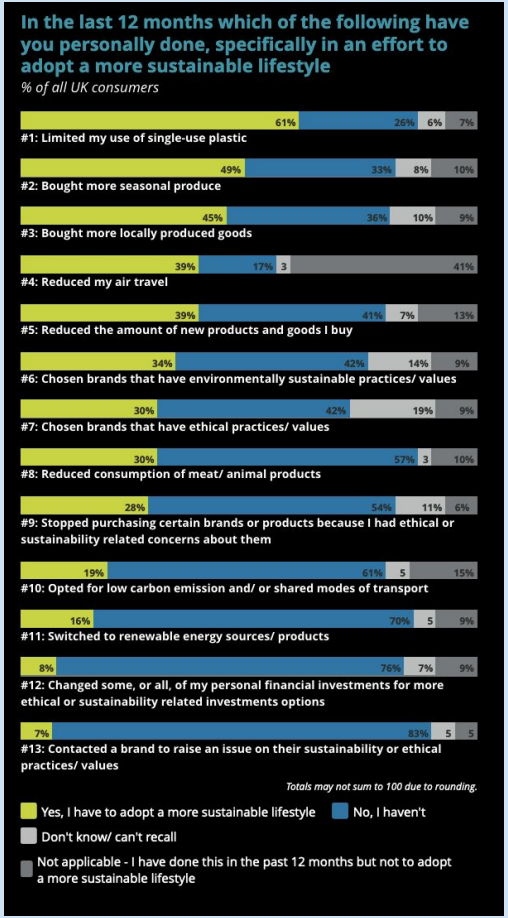
Sustainable living efforts taken

- Limited single plastic use
- Get seasonal produce
- Local product shopping
- Choosing sustainable brands
- Reduced meat consumption
- Opting low carbon emission mode of transport
- Switching to renewable energy
- Investing in ethically sustainable stocks

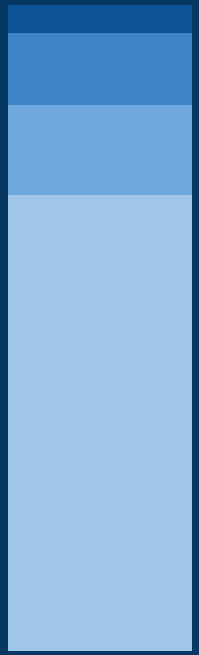
... & the list goes on **without water**

Why don't people take action

- Not interested
- Too Expensive
- Do not have enough information
- Don't believe makes a difference
- Too complex and laborious
- Time consuming
- No access locally



How can we solve this, without shutting down major industries or disrupting lifestyles?



Behaviors eg. shorter showers

Technology eg. efficient flushes

Infrastructure eg. water reclamation

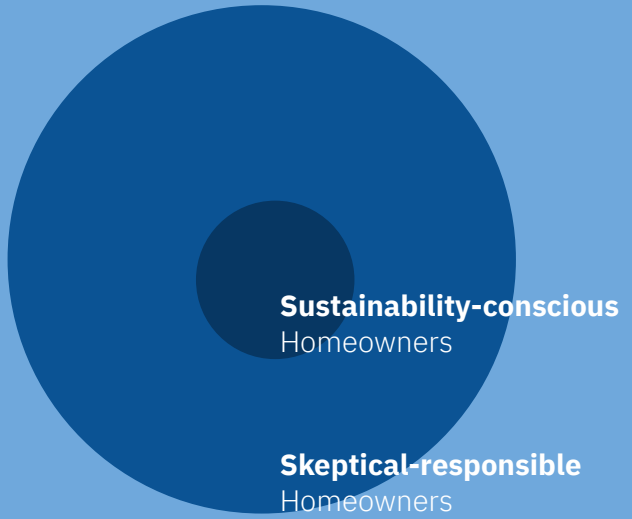
Rainwater harvesting

Energy has many renewable sources, but **freshwater only has rain.**

Harvesting this renewable resource could not only save water but also prevent Chicago's flooding woes.

When it comes to water...

Everyone's clueless, but Homeowners have skin in the game & incentive to change the status quo.



As we interviewed **renters,** we found that they rarely face the consequences (or reap rewards) for their water use as they aren't billed for it.

Homeowners, on the other hand, are more directly involved with water due to the following:

- Paying water bills.
- Controlling installations & plumbing fixtures.
- Managing properties.

“I am very interested in saving costs on my rented properties but I would use a rainwater harvesting service only if I don’t have to put in any additional labour to maintain the barrels.”

James (42) - Bridgeport landlord, Sustainability-conscious

“I stopped watering my plants to reduce the water bill...

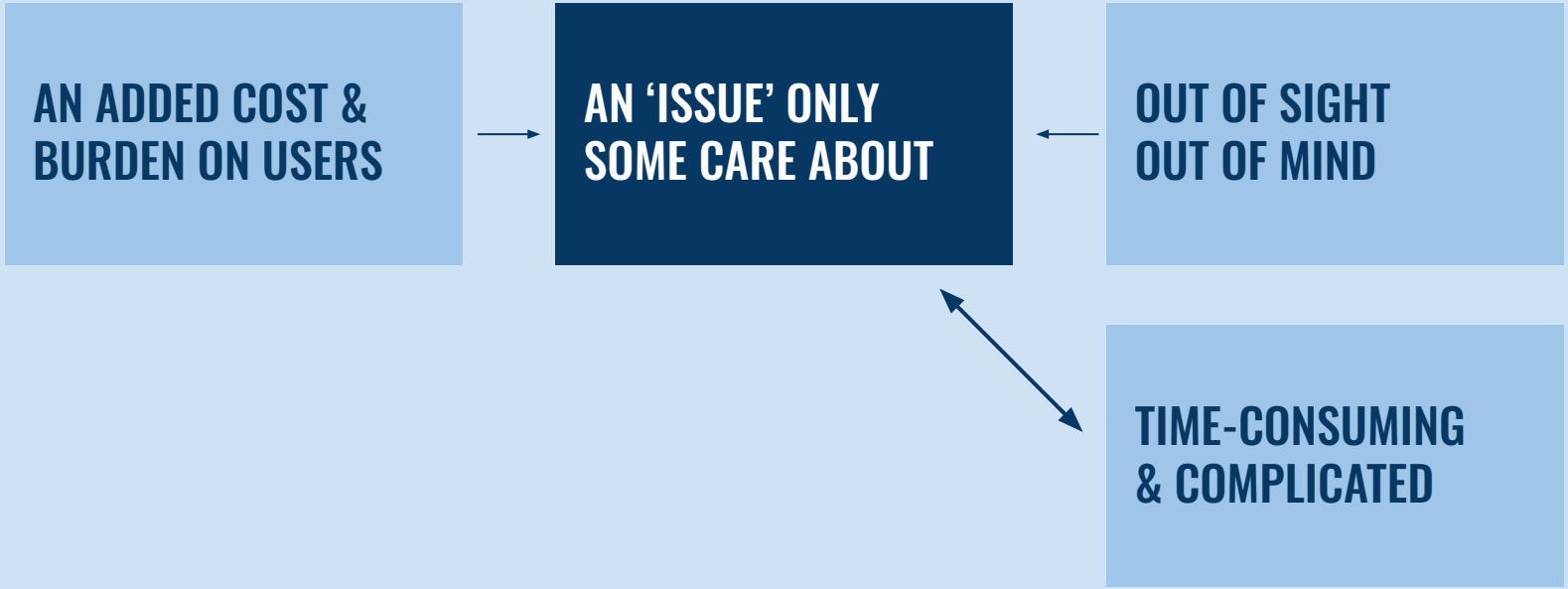
If they suggest a service, I will ask them how it works.”

Kim (60) - Bridgeport homeowner, Skeptic-responsible

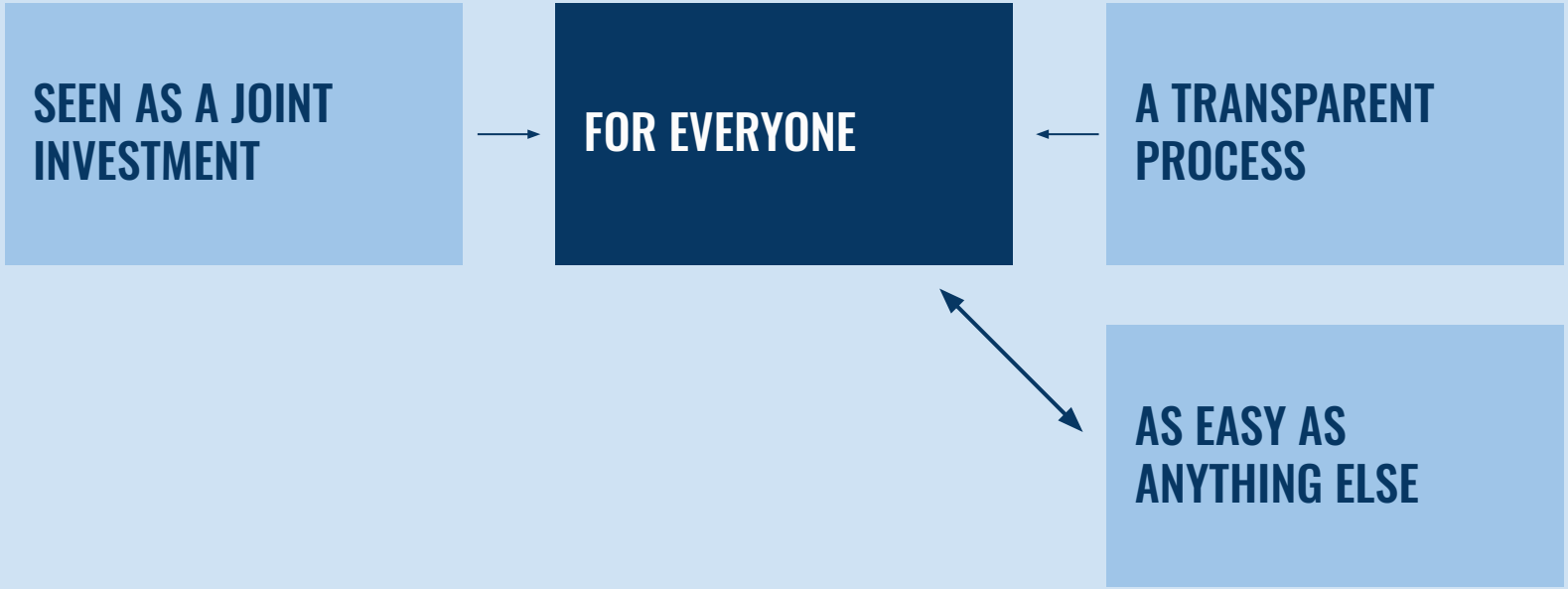
“Honestly, I don’t know anything about my water bill and why it’s so high... Taxes are going up too, they take the money & you never know where it’ll get used”

Vince (59) - Bridgeport landlord, Policy-compliant

SUSTAINABLE WATER MANAGEMENT IS...



SUSTAINABLE WATER MANAGEMENT SHOULD BE...



Citizens aren't getting involved...

- Lack of trust in the city government's actions
- No motivation to put in individual efforts for the environment
- Unsure of the impact achieved

GAP

despite the City's best efforts.

- MeterSave Program
- $50 million investment in storm-water handling
- Waste-water treatment & upcycling

We can bridge this gap with something that is...

Lack of trust in the city government's actions

No motivation to put in individual efforts for the environment

Unsure of the impact achieved

- Hassle-free, convenient
- Trustworthy
- Self-sufficient
- Leverages existing resources & infrastructure

MeterSave Program

$50 million investment in storm-water handling

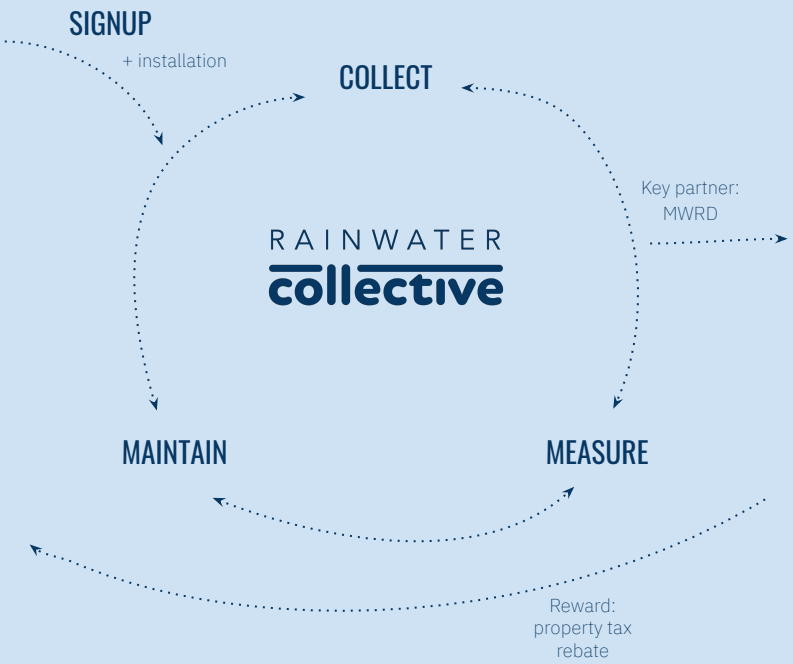
Waste-water treatment & upcycling

HMW serve homeowners using existing City infrastructure to bridge this gap?

Provide monetary & social incentives to act

Foster trust through transparent communications

Make impacts of positive actions real for homeowners



Homeowners contribute to City-level resource mgmt.

Support water management efforts by MWRD & the City

Save on energy & resources needed for water treatment

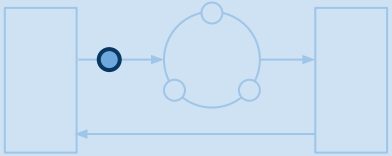
1 SIGNUP

The signup experience is focused on gaining trust & making the community effort salient for the user.

Community signups
In order to gather a critical mass for viability & spread awareness amongst community members, at least 10 buildings in a 3-block radius need to express interest.

Inspection
User selects a barrel from our catalog & schedules a visit when contacted. We visit for a meeting at the property, inspect the space & give an estimate of the one-time installations costs.

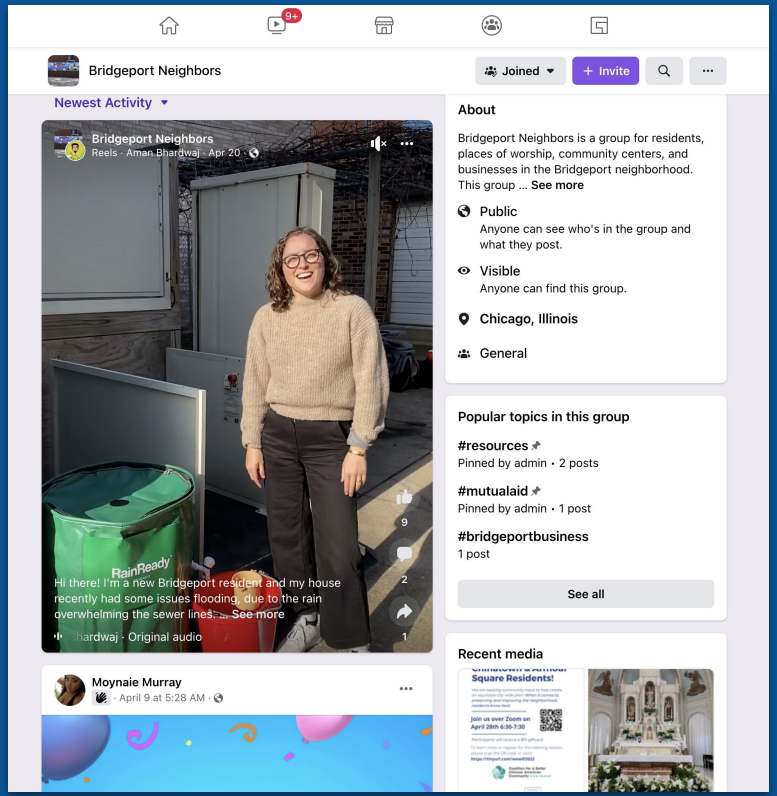
Installation
We plan the collection system & install the chosen barrel model, with piping, in the property so that users can use the water in their garden (or for other non-potable uses).



Because rainwater collection is not a front-and-center activity, community mobilization is key for increasing awareness & salience.

We will partner with many different barrel producers & providers to offer a wide catalog of options & recycle barrels.

We tested the community signup hypothesis through a social media experiment.



Assumption
Our key assumption was that homeowners would be open to rainwater collection especially if they saw interest from their neighbors. Signing up as a community member would be easier for them than doing so alone.

Experiment
We shot a video featuring a (fictitious) Bridgeport homeowner speaking about her positive experience with this service & asking neighbours to sign up so that the service becomes available in the area. We posted it to 3 local Facebook groups & a location-filtered audience on Nextdoor.

Results
We had 27 unique visits through the course of a week, with 11 homeowners (42%) voicing interest in the service.

Inferences
We found that homeowners were indeed interested to find out more about services that their neighbours loved. We did also find that their trust was important (and hard) to gain, so launching the service would pre-require endorsements from trusted community leaders.

RainReady

Home

We are reinventing rainwater use to prevent flooding!

RainReady is a solution that enables the collection of rainwater from the roof of your building. This avoids flooding due to overwhelmed sewers. It is a rain barrel installation & maintenance service provider which offers free pick-up of any unused rainwater & upcycles it in collaboration with the Metropolitan Water Reclamation District of Chicago and the City of Chicago for better use.

Chicago homeowners can now easily collect rainwater without worrying about maintenance & reduce their water bills along with a tax credit for this action.

I'm interested!

How does it work?

Have you ever dealt with flooding in your building?

We're here to solve that!

Flooding usually happens during rainstorms when the city's sewer system gets blocked due to large flow of water. In fact, just one or two inches of rain can overwhelm Chicago's water infrastructure. If this rainwater be directed elsewhere for a better use, the sewer would not be extremely loaded & could save gallons of water which could be used for any non-potable purposes.

Sign up with RainReady—let's solve this problem together!

I need help with this

How it works

Using RainReady's service is as simple as 1-2-3-4

1 Express interest in signing up

In order to participate with RainReady as a homeowner, you need to express interest with an address so we can contact you & schedule a visit for next steps.

2 Get your property inspected

you & schedule a visit for next steps.

2 Get your property inspected

You select a barrel from our catalog & schedule a visit when we contact you. We visit for a meeting at your property, inspect the space and give you an estimate of the one-time installations cost for your building.

3 We will install the rainwater collection system

water in your garden.

4 You've started collecting! We will pick up any unused rainwater for upcycling

Once it rains, you can start using the water for your garden without worrying about any water bill. If not, we offer a free pick up for any unused water and send it for upcycling.

As a newly launched public–private partnership, we need homeowners of 30 buildings in a 5-block radius to express interest to launch our full service suite.

Reach out to explore a free trial

What's in it for you

Avoiding floods in your building is not the only reason to try RainReady. It's great for the environment, for the City, and for your home garden too! Enjoy these benefits, while saving water as a community.

What's in it for you

Avoiding floods in your building is not the only reason to try RainReady. It's great for the environment, for the City, and for your home garden too! Enjoy these benefits, while saving water as a community.

Free seasonal maintenance

We know how hard it is to maintain rain-barrels. We offer free seasonal maintenance or replacement while you keep collecting water.

Tax credit up to $2000

We offer property tax rebates for every subscribed homeowner, based on the amount of water we receive in the MWRD of Chicago reclamation plants.

Reduced water bills

Keep using the rainwater for your flourishing gardens in all of your properties without worrying about excessive water bills.

Based on your current location...

13 homeowners in your area have expressed interest. We need at least 17 more interested homeowners to offer services beyond the free trial.

Join your neighbors as RainReady's early adopters!

Name

First Name

Last Name

Enter your Chicago neighborhood

Ex: Bridgeport

Submit

Squarespace 8:57 PM
to me
Sent via form submission from *Rain Barrel Service for Chicago*
Name: Sara Moy

Squarespace 9:41 AM
to me
Sent via form submission from *Rain Barrel Service for Chicago*
Name: Autumn Schultz
Email: autu
Address: 3

Squarespace Apr 20
to me
Sent via form submission from *Rain Barrel Service for Chicago*
Name: Mayukhi Chacham

Squarespace 11:17 AM
to me
Sent via form submission from *Rain Barrel Service for Chicago*
Name: Chris Kanich
Enter your Chicago neighborhood: Bridgeport

Squarespace 2:26 PM
to me
Sent via form submission from *Rain Barrel Service for Chicago*
Name: Alexis Stephens

Like Reply Share 15h

Autumn Schultz
Thanks for the video. Signed up!
Like Reply Share 3h

Write a public comm...

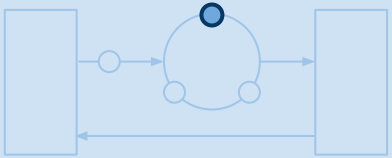
2 COLLECT

Text for collection
Users can send a simple text message for pickup of water when the barrels are full with excess water. For advanced barrels, sensors will perform this function.

Pickup via water truck
A collection truck is sent to the community & water is picked up

Depositing at MWRD center
The collected water is added to treatment plants run by the Metropolitan Water Reclamation District of the City of Chicago.

The collection service allows all kinds of households to contribute renewable water & results in substantial efficiency for the city's water reclamation efforts.



At the core of Rainwater Collective's service innovation is bridging the gap between city infrastructures & observed homeowner behaviors.

The truck is a key visibility channel & would be branded so as to spread awareness & instill pride in the city's collective work.

We need Rainwater Collective because existing private services are focused on serving the **functional needs** of the **easiest-to-acquire user** at a **small scale.**

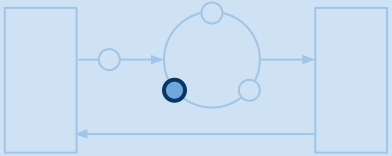
Whitespace in the market
These companies are product-focused & not trying to acquire users. From a brand perspective, they don't cater to users' emotional postures.

3 MAINTAIN

Free seasonal maintenance
We conduct a seasonal round into communities for quality checks and required maintenance. This if free of cost for the user.

Support for additional maintenance
We also provide emergency support during non-seasonal times when needed.

We suspect that many prospective users are lost due to the inconvenience involved in maintaining rain barrels, and the aversion to arduous support efforts.



Maintenance is the core concept of making rain water harvesting convenient. The high labour required in maintaining barrels is one the major pain-points of barrels for homeowners.

To remain lean & efficient, maintenance resources would be allocated seasonally, in complement with collection service resources.

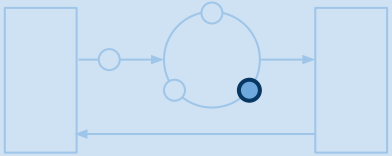
4 MEASURE

This activity is crucial for citizen satisfaction, advocacy for water sustainability & City-level policy leadership.

Homeowner incentives
We offer property tax rebates for every subscribed homeowner, based on the amount of water we receive in the MWRD of Chicago reclamation plants. This amount can be upto $2000 for each community house.

Compliance & efficiency data
Data on water collection will inform authorities about water usage amount and rainwater collection statistics, measuring impact on the impact of economy. This data could be valuable in any rainwater harvesting case studies.

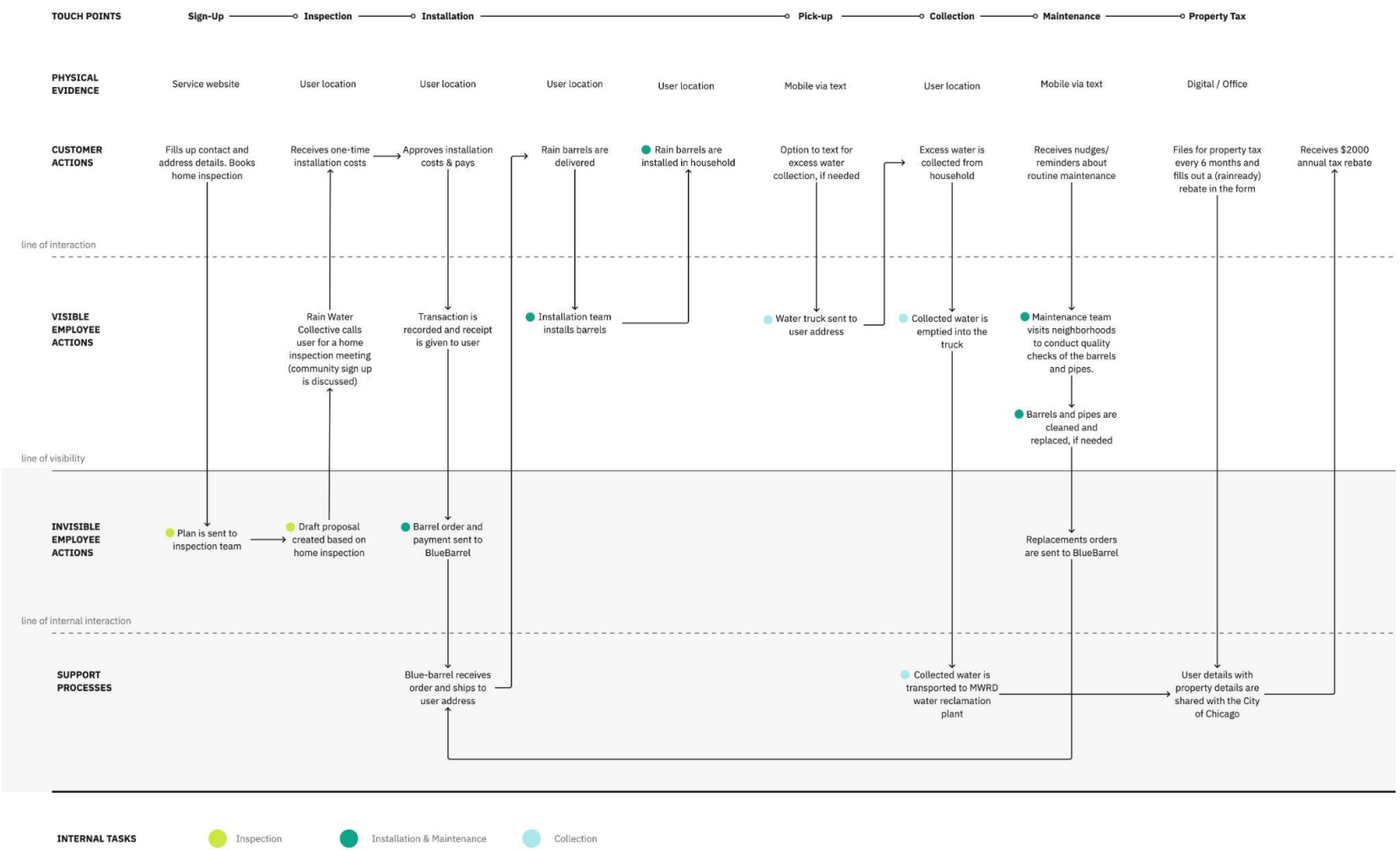
Impact transparency
Data makes impact visible adds transparency of the process and prevents greenwashing.

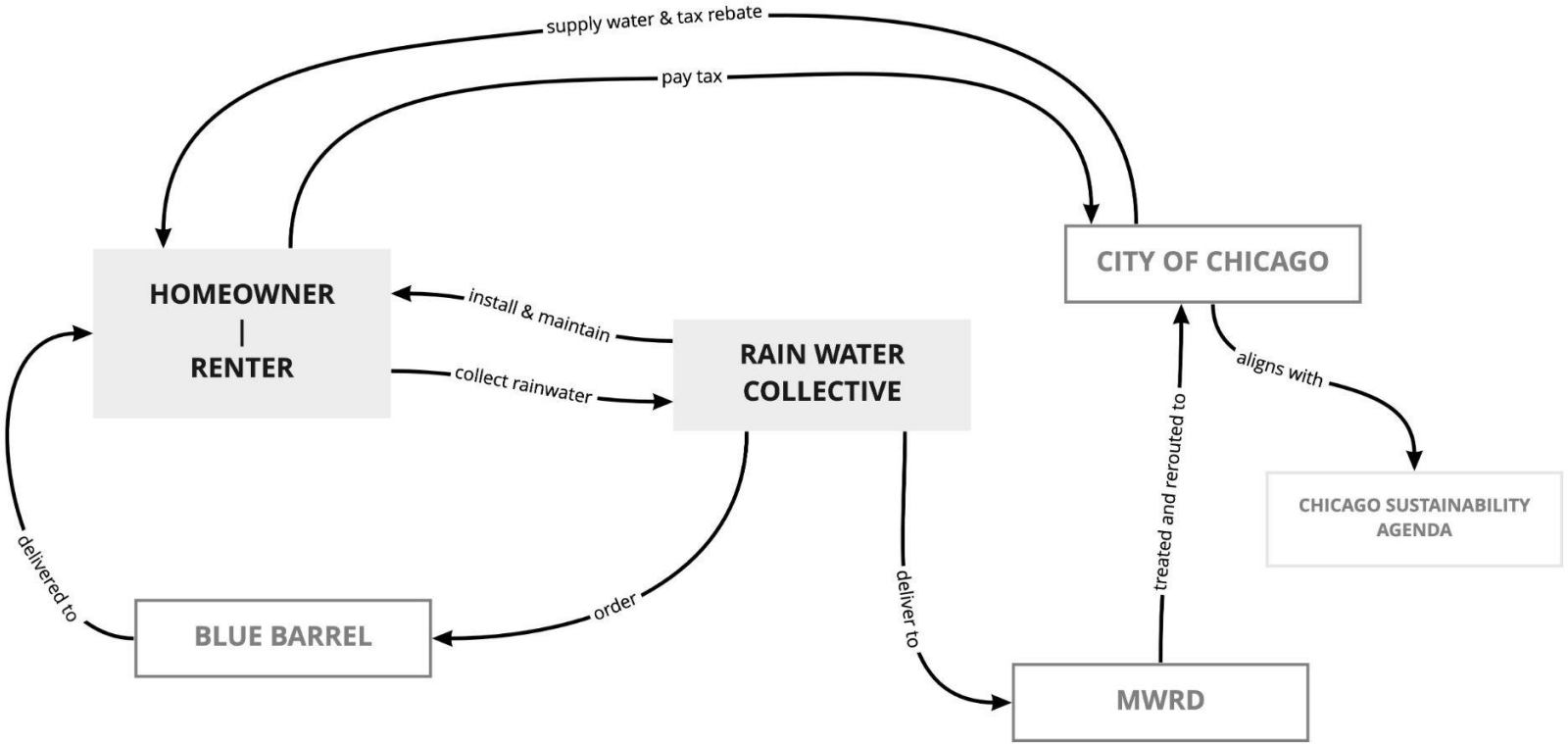


Measurement is key in bringing about a sense of trust & transparency between the City & homeowners.

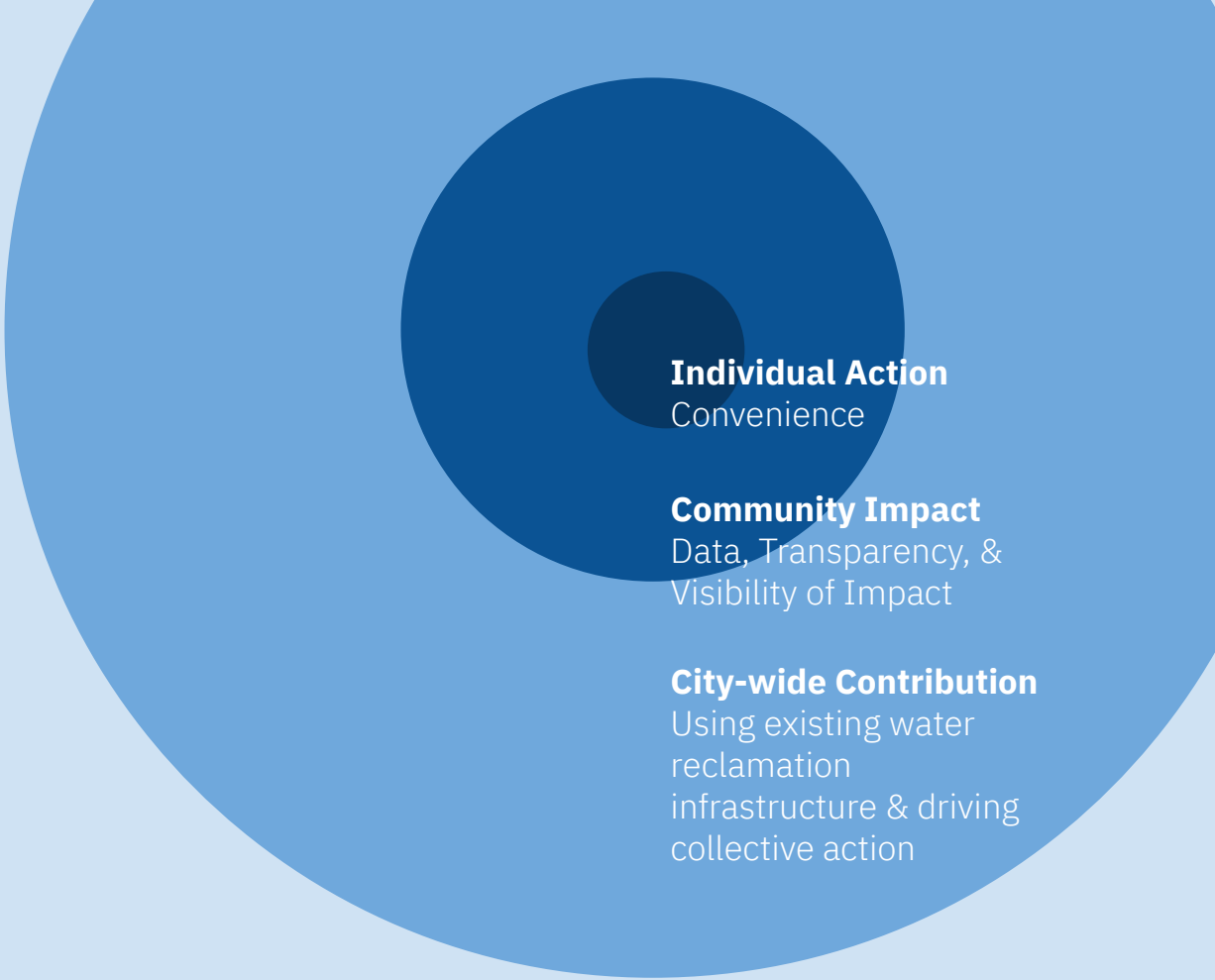
Measuring impact also helps make the case for more Collective efforts in sustainable city living & provides a sense of fulfillment.

We benchmarked Arizona's policy for rainwater harvesting. The state provides participating homeowners with a $2,000 tax rebate. Arizona (on average) sees about a third of the quantity of rainfall that Chicago does.


TOUCH POINTS
Sign-Up
Inspection
Installation
Pick-up
Collection
Maintenance
Property Tax
PHYSICAL EVIDENCE
Service website
User location
User location
User location
User location
Mobile via text
User location
Mobile via text
Digital / Office
CUSTOMER ACTIONS
Fills up contact and address details. Books home inspection
Receives one-time installation costs
Approves installation costs & pays
Rain barrels are delivered
Rain barrels are installed in household
Option to text for excess water collection, if needed
Excess water is collected from household
Receives nudges/ reminders about routine maintenance
Files for property tax every 6 months and fills out a (rainready) rebate in the form
Receives $2000 annual tax rebate
line of interaction
VISIBLE EMPLOYEE ACTIONS
Rain Water Collective calls user for a home inspection meeting (community sign up is discussed)
Transaction is recorded and receipt is given to user
Installation team installs barrels
Water truck sent to user address
Collected water is emptied into the truck
Maintenance team visits neighborhoods to conduct quality checks of the barrels and pipes.
Barrels and pipes are cleaned and replaced, if needed
line of visibility
INVISIBLE EMPLOYEE ACTIONS
Plan is sent to inspection team
Draft proposal created based on home inspection
Barrel order and payment sent to BlueBarrel
Replacements orders are sent to BlueBarrel
line of internal interaction
SUPPORT PROCESSES
Blue-barrel receives order and ships to user address
Collected water is transported to MWRD water reclamation plant
User details with property details are shared with the City of Chicago
INTERNAL TASKS
Inspection
Installation & Maintenance
Collection


supply water & tax rebate
pay tax
HOMEOWNER
|
RENTER
install & maintain
collect rainwater
RAIN WATER
COLLECTIVE
CITY OF CHICAGO
aligns with
CHICAGO SUSTAINABILITY
AGENDA
delivered to
BLUE BARREL
order
deliver to
treated and rerouted to
MWRD

Rainwater Collective creates positive impact at many levels.



Individual Action

- Hassle free decision making with regard to collection & maintenance.
- Positive impact on issues related to household flooding.

Community Impact

- Building a sense of accountability & responsibility.
- Visibility of impact.
- Level of transparency between neighborhood & city government.

City-wide Contribution

- Guaranteed supply chain.
- Savings on infrastructure: other water treatment efforts expend a lot of fossil fuels.
- Positive impact on city sewer network and, thus, the Lake.

Examples can be found globally. In 2018, Cape Town, South Africa, narrowly averted a “Day Zero,” when the taps would have run dry. Indian aquifers are falling fast. The Colorado River, a water source for 40 million people, faces dire shortages as the American West slides deeper into “megadrought.” By 2050, the world’s population is projected to near 10 billion, increasing water demand by 55%. And by then, two-thirds of people will live in cities.

“As cities continue to grow, they will have more water demand from many sectors: residential, industrial, ecological,” says Enrique Vivoni, a hydrologist at Arizona State University. “City planners have to think ahead, and not only 5, 10 years, but perhaps 50 or 100 years.”

Chicago can lead by innovating for water sustainability at the neighborhood, community & city levels.

Securing future water footprint is as urgent as climate change & rainwater collection could make it possible.

RAINWATER
collective

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Reach out to explore a free trial