AGENDA
LAKEWOOD CITY COUNCIL
STUDY SESSION
CITY OF LAKEWOOD, COLORADO
VIRTUAL MEETING
FEBRUARY 6, 2023
7:00 P.M.

To watch the Council Study Session live, please use either one of the following links:

City of Lakewood Website: https://www.Lakewood.org/CouncilVideos
or
Lakewood Speaks: Lakewoodspeaks.org

****

How to Connect to provide Public Comment:
By Computer: https://lakewood.zoom.us/j/82062813086
By iPad, iPhone, or Android device on the Zoom App, enter webinar ID: 820 6281 3086
By Telephone: 720-707-2699
Webinar ID: 820 6281 3086, #
Participant ID: #
Press *9 to Request to Speak, you will be prompted when to speak.
Press *6 to Unmute

****

The City of Lakewood does not discriminate on the basis of race, age, national origin, color, creed, religion, sex, sexual orientation or disability in the provision of services. People with disabilities needing reasonable accommodation to attend or participate in a City service program, can call 303-987-7080 or TDD 303-987-7057. Please give notice as far in advance as possible so we can accommodate your request.

ITEM 1 – CALL TO ORDER

ITEM 2 – ROLL CALL

ITEM 3 – PRESENTATION – UPDATE ON WATER CONSERVATION AND HB22-1151 FROM THE LAKEWOOD ADVISORY COMMISSION

PUBLIC INPUT

ITEM 4 – PRESENTATION – UPDATE ON WATER CONSERVATION AND HB22-1151 FROM LAKEWOOD STAFF

PUBLIC INPUT

ITEM 5 – PRESENTATION – UPDATE ON THE STRATEGIC HOUSING PLAN

PUBLIC INPUT

ITEM 6 – ADJOURNMENT

STAFF MEMO

DATE OF COUNCIL STUDY SESSION: FEBRUARY 6, 2023/ AGENDA ITEM NO. 3

To: Mayor and City Council

From: The Sustainability Subcommittee of the Lakewood Advisory Commission
Jay Robb, City Clerk, 303-987-7081

Subject: **UPDATE ON THE WATER CONSERVATION AND HB22-1151 FROM THE LAKEWOOD ADVISORY COMMISSION**

SUMMARY STATEMENT: In response to House Bill 22-1151, which created a state Turf Replacement Program, the Lakewood City Council requested the Lakewood Advisory Commission (LAC) to research and make recommendations based on this legislation.

BACKGROUND: The state Turf Replacement Program was charged to develop measures to incentivize water-wise landscapes and create a state program to finance the voluntary replacement of irrigated turf.

Between June 2022 and December 2022, the Sustainability Subcommittee of the LAC worked with Jonathan Wachtel, Planning Manager, and Jeff Wong, Senior Planner, with the City's Sustainability Division to analyze the legislation and proposed the best recommendations for the City of Lakewood.

BUDGETARY IMPACTS: City staff applied for a $100,000 Colorado Water Conservation Board grant to support a residential outdoor water conservation incentive program. The city is expected to receive notice of award in March 2023.

STAFF RECOMMENDATIONS: That the City Council take the report and recommendations from the LAC into consideration and consider the assignment closed.

ALTERNATIVES: The City Council could ask for additional research or recommendations from the LAC related to water conservation measures in the community.

PUBLIC OUTREACH: This meeting was advertised through the normal channels. Additionally, this project has been discussed and presented in several, public LAC meetings.

NEXT STEPS: The Sustainability Subcommittee of the LAC will continue to monitor state and local issues related to water conservation that could impact the City of Lakewood.

ATTACHMENTS: Water Conservation Plan from LAC Sustainability Subcommittee
PowerPoint Presentation

REVIEWED BY: Kathleen E. Hodgson, City Manager
Benjamin B. Goldstein, Deputy City Manager
Alison McKenney Brown, City Attorney

Lakewood Advisory Commission

Water Conservation Plan for City of Lakewood Pursuant to HB 22-1151

Sustainability Committee
January 2023

Executive summary

Context

Water conservation has been an active priority for many citizens in Lakewood, especially with increased drought and reduced water supply in the mountain west region.

House Bill 22-1151 (Turf Replacement Program) was signed into Colorado state law in June 2022 and directs the Colorado Water Conservation Board (CWCB) to develop a statewide turf replacement program, which will provide one time funding to incentivize the voluntary replacement of non-functional irrigated turf. The program will begin July 1, 2023. Local governments are eligible to apply for grant funding to support existing turf replacement programs, although the process is still being developed by the CWCB. The grant requires a dollar-for-dollar match by the local government. Alternatively, if a local jurisdiction does not have an existing turf replacement program, homeowners will be able to apply for funding through a third-party contractor selected by the CWCB.

Sustainability Committee Assignment

At the May 23, 2022 City of Lakewood City Council meeting, City Council assigned the following tasks related to water conservation to the Lakewood Advisory Commission (LAC) Sustainability Subcommittee with the intent that LAC report back to City Council with recommendations:

- Council Assignment #1: Find out how the City can leverage the upcoming state turf replacement funding
- Council Assignment #2: Summarize what other municipalities are doing to help residents reduce outdoor water usage
- Council Assignment #3: Develop guidance on how covenant-controlled communities can reduce their outdoor water usage

At a subsequent City Council meeting, City Council added on the following task for the LAC Sustainability Subcommittee to research:

- Council Assignment #4: Review the existing municipal code to identify language that may need to be adjusted to encourage waterwise landscaping

Because City staff within the Sustainability division was already working on addressing residential water conservation, the LAC worked collaboratively with staff to respond to City Council's assignments and make recommendations.

Recommendations

The LAC, after extensive consultation with the Sustainability staff, recommends that a turf replacement program leveraging state funding be a part of a larger, more comprehensive Residential Outdoor Water Efficiency Program. LAC and staff collaboratively worked to research best practices, identify key partners, assess resource needs and availability and then develop options for moving forward that aligned Council's assignment with sustainability plan goals. The first step of the program would be to implement a low-cost 2-year project focused on creating incentivized water conservation strategies and education. The results and impacts of the project would be used to inform long-term program structure, including partner organizations, resources, and funding requirements.

Council Assignment #1. Staff recently submitted a Colorado Water Conservation Board grant requesting $100,000 to support a two-year Residential Outdoor Water Efficiency project that would begin in Spring 2023 and is estimated to save two million gallons of water. An award decision is expected in March 2023. Having a contract in place with an organization like Resource Central in Spring 2023 would position the City to quickly leverage state funds as soon as the Turf Replacement Program is established. Additional potential funding mechanisms include funding from the state Turf Replacement Program, state and federal water conservation grants, the city's General Fund, low-interest financing, or a combination thereof.

Because water conservation is a pressing issue that will be a focus for many years to come, this proposed project should be the first implementation step of a longer-term Community Water Conservation Plan. Results from the Residential Outdoor Water Efficiency project will help the City prioritize which conservation measures are most impactful to residential water savings and should be included in long-term planning.

***Summary of LAC recommendations*: The LAC recommends that City staff develop a Residential Outdoor Water Efficiency Project, the first step of a long-term ongoing Community Water Conservation Program and develop a resource plan for project implementation.**

Assignment # 2. Several front range communities have established education and incentive programs targeting outdoor water conservation. Several Jefferson County municipalities, including Wheat Ridge, Golden and Arvada, use organizations like Resource Central, a non-profit based out of Boulder specializing in water conservation implementation, to administer their conservation programs.

It must be noted that other Front Range cities have found permanent water restrictions more effective for reducing water use when compared to voluntary watering restrictions.

***Summary of LAC recommendations*: The LAC recommends that City staff establish a partnership with an organization like Resource Central to create a Residential Outdoor Water Efficiency Project.**

Assignment # 3. Homeowner Associations have the responsibility of maintaining common area landscaping, thus having an important role in outdoor water usage. Many common areas are covered in non-functional (aesthetic only) turf and are inefficiently irrigated. HOA laws in the state prohibit associations from adopting covenants that ban or restrict xeriscaping, or require owners to use turf grass. HOA's can, however, enforce the appearance of their communities. Despite these laws, there is still

misinformation about landscaping requirements within covenant-controlled communities. An HOA toolkit with information focused on water conservation can mitigate this.

***Summary of LAC recommendations*: The LAC recommends that City staff uses research and information from the LAC to develop a HOA Toolkit focused on water conservation.**

Assignment # 4. Lakewood's current municipal code does not have specific language regarding the use of waterwise landscaping, aside from a reference to xeriscape gardens being exempt from height limitations as a site nuisance. Additionally, it is unclear how the role of native grasses for residential landscapes integrates with the city's definition of what constitutes an unlawful condition on property.

Several other communities have comprehensive landscaping ordinances that encourage the use of low-water native plants and grasses and restrict the use of non-native grasses. Lakewood has an opportunity to incorporate code language that will reduce outdoor water use while maintaining a vibrant Colorado native landscape in our neighborhoods.

***Summary of LAC recommendations:* The LAC recommends that City staff review the Municipal Code and develop proposed revisions that will help reduce outdoor water use and align with the City's adopted water conservation goals, while taking into consideration neighborhood values and the importance of code enforcement responsibilities related to noxious weeds, fire hazard, and aesthetics.**

Note on Equity

We suggest applying an equity lens when executing a turf replacement program. For Lakewood to achieve the most favorable results from these water conservation ideas above, it is important that we find ways to engage all of our citizens, households, and communities. We may wish to incorporate financial means in our designs. Lakewood must navigate communication barriers and multilingual outreach to best increase our successful implementation of these ideas. Multilingual outreach is not only verbal but also needs to be written word translators to allow English as a second language users the ability to read bids, contracts, and licensing documents. Lastly, we should recognize that age and disability will require more humanpower to accomplish water conservation and some form of volunteer assistance may be essential.

Introduction

Water conservation has been an active priority for many citizens in Lakewood, especially with increased drought and reduced water supply in the mountain west region. At the May 23, 2022 City of Lakewood City Council meeting, City Council assigned the following tasks related to water conservation to the Lakewood Advisory Commission (LAC) Sustainability Subcommittee with the intent that LAC report back to City Council with recommendations:

- Council Assignment #1: Find out how the City can leverage the upcoming state turf replacement funding
- Council Assignment #2: Summarize what other municipalities are doing to help residents reduce outdoor water usage
- Council Assignment #3: Develop guidance on how covenant-controlled communities can reduce their outdoor water usage

At a subsequent City Council meeting, City Council added on the following task for the LAC to research:

- Council Assignment #4: Review the existing municipal code to identify language that may need to be adjusted to encourage waterwise landscaping

In response, LAC provides the following recommendations for City Council. LAC engaged and worked with City staff in the Sustainability Division on their recommendations to align with the adopted Sustainability Plan implementation strategies and staff's existing work items related to water conservation.

Council Assignment #1: How can the City leverage state turf replacement funding?

The LAC and Sustainability staff recommends that a turf replacement program leveraging state funding be a part of a larger, more comprehensive Residential Outdoor Water Efficiency Program. The first step of the program would be to implement a low-cost 2-year project focused on creating incentivized water conservation strategies and education. The results and impacts of the project would be used to inform long-term program structure, including partner organizations, resources, and funding requirements.

Outdoor irrigation of non-functional turf (grass used for ornamental purposes and not regularly used for human recreation) uses significant amounts of potable water. Replacing non-functional turf with low water native grasses and waterwise landscaping reduces water use and supports the region's water conservation and efficiency goals. House Bill 22-1151 (Turf Replacement Program) was signed into Colorado state law in June 2022 and directs the Colorado Water Conservation Board (CWCB) to develop a statewide turf replacement program, which will provide one time funding to incentivize the voluntary replacement of non-functional irrigated turf. The program will begin July 1, 2023. Local governments are eligible to apply for grant funding to support existing turf replacement programs, although the process is still being developed by the CWCB. The grant requires a dollar-for-dollar match by the local government. Alternatively, if a local jurisdiction does not have an existing turf replacement program, homeowners will be able to apply for funding through a third-party contractor selected by the CWCB.

Assessments of highly effective conservation programs in Colorado communities and other cities with similar climates demonstrate the importance of providing a range of water saving opportunities for residents (see Council Assignment #2). In addition to turf replacement, several other strategies promote increased outdoor water efficiency, including waterwise landscaping, education, and new technologies.

LAC recommends that the City develop a Residential Outdoor Water Efficiency project which aims to reduce residential outdoor water usage by financially incentivizing low-water landscaping and smart technologies and educating Lakewood community members about best practices. Many cities do not have the expertise, staff time, and resources to administer their own incentivized conservation programs directly, so they partner with local contractors. Resource Central is a local Colorado nonprofit that works with several front range communities to implement their water conservation programs. Their specialized services allow municipalities to implement their water conservation goals while reducing administrative burden because Resource Central handles all the enrollments, scheduling, and labor. Through a partnership with an organization like Resource Central, the City of Lakewood would provide the following services to residents:

- Discounted professionally designed low-water use garden planting kits, called Garden In A Box

- Deeply discounted Garden In A Box kits for low-income households

- Free residential sprinkler evaluations to optimize watering efficiency with the option of receiving a smart controller or rain sensor

- Discounted lawn replacement to permanently remove turf and replace with customized waterwise landscaping and plants

This project will also include an education campaign that not only reviews the proposed incentive programs, but also teaches residents ways to save water throughout their households. The education campaign includes the development and distribution of a Residential Outdoor Water Resource Guide that

provides information to households about conservation strategies and how to transform their landscapes and native plants and grasses in their yards to lower water use. The Resource Guide could include xeriscape design templates, instructions on self-irrigation assessments, recommended plant lists, pollinator education, and watering best practices. Appendix A contains a comprehensive list of potential information to include in a Resource Guide. Other educational opportunities include teaching residents about how to read their water bills, innovative irrigation technologies, how to report leaks, and estimating outdoor water use. The City can work with local partner organizations to help market the education campaign.

Staff recently submitted a Colorado Water Conservation Board grant requesting $100,000 to support a two-year Residential Outdoor Water Efficiency project that would begin in Spring 2023 and is estimated to save two million gallons of water. An award decision is expected in March 2023. Having a contract in place with Resource Central in Spring 2023 would position the City to quickly leverage state funds as soon as the Turf Replacement Program is established. Additional potential funding mechanisms include funding from the state Turf Replacement Program, state and federal water conservation grants, the city's General Fund, low-interest financing, or a combination thereof.

Because water conservation is a pressing issue that will be a focus for many years to come, this proposed project should be the first implementation step of a longer-term Community Water Conservation Plan. Results from the Residential Outdoor Water Efficiency project will help the City prioritize which conservation measures are most impactful to residential water savings and should be included in long-term planning.

***Summary of LAC recommendations*: The LAC recommends that City staff develop a Residential Outdoor Water Efficiency Project, the first step of a long-term ongoing Community Water Conservation Program and develop a resource plan for project implementation.**

Council Assignment #2: What are other municipalities doing to address residential outdoor water usage?

Several front range communities have established education and incentive programs targeting outdoor water conservation. Resource Central, a non-profit based out of Boulder referenced in the section above, has contracts with several Jefferson County municipalities, including Wheat Ridge, Golden and Arvada to administer their conservation programs. These contracts include voluntary water wise initiatives like Garden in a Box, Grass to Garden, Lawn Removal, Water Wise Landscaping Seminars and Slow the Flow (irrigation assessments). A survey of four local communities showed that these jurisdictions spent between $50,000 - $300,000 on water conservation incentives in 2022.

Although there is currently no outdoor water incentive program in Lakewood, we already have several sustainable neighborhoods supporting and participating in water conservation efforts and even pollinator garden tutorials. We have Kendrick Lake and O'Kane parks which have xeriscape and native plant demonstration gardens available for viewing with most plants having identifier markers. Lakewood's sustainable neighborhoods could be a good place to start and roll out the process of reducing and replacing turf/lawn.

Mostly, what cities are trying to achieve with incentives is to eliminate square footage of sod/turf, eliminate quantities of aerial irrigation and transition to drip irrigation, use technology available in order to reduce watering after rain events, and lastly increase efficiency of older aerial sprinklers. Many front range cities in Colorado offer various incentives from free educational events to up to $3000 rebates to reduce water use; from a "water saving champions" pledge in Thornton, free educational workshops, "Garden in a box", irrigation technologies and efficiency measures, up to total lawn to xeric replacement subsidies. Other states have a few different options like incentives for rain storage, smart leak detectors, treebates, pool covers, water wise pool filters, pool removal, pressure regulators, greywater, mulch coupons, and flip the strip. Many of the examples in Appendix B from other cities could be adapted for Lakewood.

It must be noted that other Front Range cities have found permanent water restrictions more effective for reducing water use when compared to voluntary watering restrictions. For instance, Colorado Springs saw a 1 percent reduction in commercial irrigation and a 4% to 5% reduction in residential irrigation during the first year of restrictive watering rules. Those initial numbers were consistent with the city's goal of contributing 11,000 to 13,000 acre-feet to its supply through conservation over the next 50 years through the watering rules and other measures. Leaders cite conservation and storage as a careful and important balance in Colorado.

***Summary of LAC recommendations*: The LAC recommends that City staff establish a partnership with an organization like Resource Central to create a Residential Outdoor Water Efficiency Project.**

Council Assignment #3: Develop guidance on how covenant-controlled communities can reduce their outdoor water usage

Homeowner Associations have the responsibility of maintaining common area landscaping, thus having an important role in outdoor water usage. Many common areas are covered in non-functional (aesthetic only) turf and are inefficiently irrigated. HOA laws in the state prohibit associations from adopting covenants that ban or restrict xeriscaping, or require owners to use turf grass. HOA's can however enforce the appearance of their communities (think dead un irrigated grass as enforceable while active xeric garden would not) Despite these laws, there is still misinformation about landscaping requirements within covenant-controlled communities. LAC recommends that a HOA Toolkit be developed specifically to teach covenant-controlled communities how to reduce outdoor water use. The Toolkit would provide an action list and resources, including clarification on state laws surrounding turf requirements, alternatives to turf grass, efficient sprinkler head technologies, irrigation assessments and optimizing watering schedules, and communication templates. Appendix C includes a list of items that could be included in the HOA Toolkit.

Upon completion, the HOA Toolkit could be distributed throughout the city, primarily through communication with HOA communities and members, property managers, and may be useful for commercial properties also. Communication with the residents of HOA's may also be important via postcards or such to empower the homeowner in an HOA to be able to add water saving ideas to their landscape. Additionally, the HOA Toolkit can help facilitate fact-based discussions among homeowners and their HOA's regarding specific water conservation projects.

***Summary of LAC recommendations*: The LAC recommends that City staff develop a HOA toolkit to help HOA managers and residents implement water conservation strategies.**

Council Assignment #4: Review the existing municipal code to identify language that may need to be adjusted to encourage waterwise landscaping

Lakewood's current municipal code does not have specific language regarding the use of waterwise landscaping, aside from a reference to xeriscape gardens being exempt from height limitations as a site nuisance. Additionally, it is unclear how the role of native grasses for residential landscapes integrates with the city's definition of what constitutes an unlawful condition on property.

Several other communities have comprehensive landscaping ordinances that encourage the use of low-water native plants and grasses and restrict the use of non-native grasses. Lakewood has an opportunity to incorporate code language that will reduce outdoor water use while maintaining a vibrant Colorado native landscape in our neighborhoods.

Summary of LAC recommendations: **The LAC recommends that City staff review the Municipal Code and develop proposed revisions that will help reduce outdoor water use and align with the City's adopted water conservation goals, while taking into consideration neighborhood values and the importance of code enforcement responsibilities related to noxious weeds, fire hazard, and aesthetics.**

Equity Considerations

For Lakewood to achieve the most favorable results from these water conservation ideas above, it is important that we find ways to engage all of our citizens, households, and communities. Emphasizing equity in water conservation encourages higher engagement from underserved communities and leads to stronger and more sustainable results (WSP.com). Conservation programs are often focused on the needs of single family homeowners, while overlooking the needs and limitations of residents in multi-family and/or underserved communities (WSP.com). Moreover, research has shown that it is residents of color, minoritized residents, and underserved communities that are disproportionately burdened by climate change and water insecurity. This LAC recommendation focuses on the equity aspects related to publication and communication, and the financial costs and benefits of a water conservation program. These equity considerations are not exhaustive.

Publication & Communication
Lakewood must navigate communication barriers and multilingual outreach to best increase our successful implementation of these water conservation ideas. Local broadcast stations and publications that operate in languages other than English can be employed to communicate about the program. Multilingual outreach is not only verbal but also needs to be written word translators to allow English as a second language users the ability to read bids, contracts, and licensing documents. Let us not stop there, for we could also use this time to incorporate translators like Google Translate into the city's website for encouraging MWBE business development.

Logistically, details about the program should be clear and information about the application process and qualification should have clear guidelines and should be easy to understand. The LAC also recommends that interaction with the City regarding the water conservation program should not be fractured but be a "one stop shop." The City of Lakewood may want to partner with community groups and community based outreach staff to deliver information about the program that resonates with the residents.

Financial costs and benefits
We may wish to incorporate financial means in our designs. This includes possible sliding scales of financial assistance while focusing on water conservation. Lawn replacement may be something that only more affluent property owners can afford, which makes some of the other lower cost conservation options important.

Further questions to contemplate

- Could we create a business incubator and grow Lakewood's landscape, xeric, and garden maintenance in the MWBE presence?
- Could we recommend landscape designs that could be implemented over longer periods to spread out the overall cost of the project and ease the financial burden to the resident?
- Could certain plant quantities and selections that are commonly recommended actually extend financial hardships to households?
- How can renters work with landlords to reduce water consumption?
- Could we not drive our local economy while conserving water?
- How does the program engage and serve all ages and abilities; do we need more humanpower to accomplish water conservation and maybe some form of volunteer assistance?
- Is there structural racism or other inequalities embedded in our water infrastructure?

These equity considerations should be interwoven in the entire planning process as equity and sustainability go hand-in-hand.

Reference

WSP.com https://www.wsp.com/en-us/insights/2022-water-conservation-through-equity-lens. Last accessed 12/19/22

APPENDICES

Appendices Summary

The following appendices were created not just to support this document but also to highlight interesting ideas LAC found for city staff to have available in creation of various water conservation platforms.

Appendix A, **A Resource Guide**, is research of sources and content that LAC found that may be useful when Lakewood staff develops the Residential Outdoor Water Resource Guide followed by some amazing water use stats.

Appendix B, **Research about Other Municipal Water Programs**, starts with a few other city's interesting ideas and then a chart of many Colorado cities with links to their specific water conservation pages as well as a brief summary of their incentives. Lastly, it also has some unique ideas from other states.

Appendix C, **HOA Toolkit**, begins with resources and ideas to help HOA's conserve water that could be used in a HOA Toolkit and ends with ways that a HOA can benefit from adopting water wise thinking.

Definitions

Appendix A: Resource Guide - Useful Content

A. Other cities have partnered with Resource Central through the Water Conservation Partnerships.
B. Resource Central garden in a box
C. Online sources for different looking xeric garden scapes.
    a. The Top 62 Xeriscape Ideas - Trendey
    b. Xeric templates
    c. Denver Water design templates
    d. CSU Extension
    e. 11 Simple Lawn Alternatives to Grass in Your Backyard – Environmental Designs
D. To add a section of "green" to a new garden think about using clover species alone or with native grasses. Fixes nitrogen, low water use, and is good for the bee's.
E. Cost estimates for various degrees of gardens.
F. Maybe designed in layers like sod removal, fabric and mulch, or fabric and rock garden, irrigation plan (seems irrigation should be on top of fabric for more flexibility, pick and choose plants per water wise guides.
G. Structure of rebates/incentives based on number of active sprinkler heads/irrigated sod being removed
    a. Prioritize yards that are saving water
    b. Reward properties that show a history of water reduction
H. Gardens are evolving monthly and do not need to be built out in one year. Present the option for a multi-year transition plan that allows a gradual transformation to a waterwise landscape to help spread the costs over time.
I. Numerous languages need to be available. Some Spanish language documents here
J. Information to show the importance of adjusting our lives now with water conservation practices. Water facts.. Statistics and Facts | US EPA
K. Bee friendly literature could be provided to help care for the bees.
L. Resource Central 7 steps and Methods. Maybe a tutorial on tying into a sprinkler line. One on how to remove the sod or plant over the sod. Fabric choices and installation ideas. Adding fabric cover (large rocks, mulch and smaller rocks), plants, and extending drip line tubing/emitters.
M. If sod removal is wanted, then we will need to find a way to keep it out of the landfill. We may want a large sod compost location maybe similar to our mulch pile. We can also encourage removal of some sod to use in other locations on our yard to create berms and depth in the once flat turf yard. These same berms can be used to trap rain runoff and feed our aquifers. Instead of digging up grass, some folks just add amendments and plant over it with the lasagna method.
N. It seems consistency in irrigation design would be important. So, maybe a good incentive would be to provide a certain PSI pressure regulator so all plants can be distributed with directions on how much water can be used. Maybe we need an irrigation template to give these garden investments the best chance of success.
O. Bulk buying fabrics, moisture or rain sensors, foundational plants, and specific sprinkler parts.
P. In Florida they restrict turf irrigation with well water to the same schedule as the municipal water system.
Q. Could Lakewood utilize the greenhouse to grow a select few foundational plants to start many conversions? Maybe a small field of ornamental grasses would be possible.
R. Notice the water usage for the first 4 months of the year and then you can see the sprinklers get turned on. If we could delay when sprinklers turn on and off (spring and fall) we could save lots of water. Maybe instead of regulating when sprinklers can be turned on and off, could we regulate only 2 days a week until a certain date and at the end of the season step down to 2 days a week at some point. A few cities do this already. Fresno, CA
S. Every home has a water meter.. some are more accessible than others (some are in basements and some are in the meter pit by street). Each meter has a micro metering dial that can show wasting drips from a faucet. Can we educate people to check their water meter?

T. WIFI enabled Flume II water monitor or other variations/brands. $200. Maybe the city could have a program to install one for x number of days to help water users better understand the water usage. Also good for determining leakage. This mounts at the water meter, some near the street and some in basements. These type devices can monitor water usage per sprinkler zone, per shower, high flow events and just awareness in general.
U. These initiatives would also be supporting Sustainable Neighborhood Network credits.
V. Water leak finder sheet from Westminster, CO "detect and chase down a leak"
W. Drip irrigation helper guide
    a. Some basic drip guidelines
    b. Complete guide
    c. Drip line pressure tester
    d. Backflow, filter, 25psi regulator
    e. Simple wired rain sensor with adjustable rain and time amounts … another
    f. Smart controllers have zones and not everyone will need 4,8,12 + zones
    g. Hose style controller with a wired rain sensor

Community engagement and outreach materials that may encourage residents to reduce outdoor water usage.

A. A common trap for conservation is "we save water and they sell fewer gallons so they charge us more for what we do use.. So, just keep using more"
B. Many water facts , US specific water facts, and some more conservation numbers.
C. Some unbelievable lawn mowing stats. Found here.
D. A water usage and comparison calculator. Interesting tool to engage kids to join in and help. Another Outdoor Water Use at Home (watercalculator.org)
E. EPA statistic sheet. Statistics and Facts | US EPA
F. EPA water sense program and water sense calculator for water, energy and carbon savings.

Appendix B: Research about Other Municipal Water Conservation Programs

One item that only appeared once in another state was a $400 rebate offered for artificial turf. Many other cities specifically say that though artificial turf (a fairly controversial ground cover) is allowed per city code but it is not acceptable for incentives or rebates in their water conservation program. Artificial turf is not a qualifying replacement for turf grass as part of the state's Turf Replacement Program funding.

Westminster, CO HOA irrigation audit

From Westminster, CO again directed at HOA homeowners "HOA Rules: If you live in an HOA, your association cannot require you to have a turf grass lawn at your home – that's been a state law since 2013! You still may have to make sure your landscape looks nice, but it can be fully xeriscaped. Look for ideas on how to makeover your yard with our Garden in a Box discounts."

Fort Collins, CO has an entire program for commercial or multifamily water and energy conservation.

Greeley, CO has a landscaper certification program

Many cities have a "first come first serve" policy with rebate funds. It may make sense to lower the initial turf replacement rebate dollars to cover a larger group of participants with the early participants being more 'eager' to make this transition. Or find a way to build tiers into the cities funds so when a dollar amount has been reached then it opens up the next dollars. If a tier is not reached then the dollars kick over to next year or back into the general fund or?? A good problem would be to have to many people want to join the program and it would be a bummer to turn many people away.

Chandler, AZ "Non-pervious materials such as black plastic sheeting are not permitted in the rebated area." So, weedblocks need to be able to allow water to migrate into the ground.

Many cities have water waste reporting "hotlines" some can be punitive and many are just informative Hayward, CA Las Vegas water district, NV

Denver Water (2019) is not sold on turf replacement incentives reasons found here. Denver Water may have different goals on where to spend their money.

The chart below was created from mostly these two articles, from the CO Independent (2019) and fromYardzen (2022) .

City/State	Action Required	Reward/Incentive/ Rebate	Notes
Colorado Cities			
Arvada, CO	Garden in a box	$25 savings per kit	
	Waterwise yard seminars	free	
	Smart controller program	$116 reduced price	
	Lawn Replacement	Up to $500 off	if funds available
Aurora, CO	Water-wise landscape rebate	Up to $3000	Convert turf to water wise
	Residential irrigation rebates	$6/head to $200 for smart controller	$15 – 50 for rain sensors, $100 each for up to two soil moisture sensors, $12 each for gear-driven rotor sprinklers, $9 each for pop-up sprinkler bodies, $6 each for high-efficiency nozzles, and $75 for up to three zones for spray-to-drip conversion.
Colorado Springs, CO	Irrigation equipment rebates	$4 per low flow heads up to $50 per smart controller	up to $50 for smart irrigation controllers, Up to $50 for wireless & $25 for wired rain sensors, up to $5 each for sprinkler heads with check valves, up to $4 each for rotating matched precipitation nozzles.
Louisville, CO	Slow the flow inspections	Free	75 min evaluation
	Garden in a box	$25 discount	Xeriscape box
	Grass to garden lawn replacement	Lawn removal discount	Pay as little as $1 / sq. ft.
	Rachio Smart Controller	Free with install	
Denver, CO	Water sense labeled smart controller	$75 rebate	
	High efficiency rotary heads	$3 per head	
Thornton, CO	Water wise landscape rebate	Paid $2 per sq ft	Transform a section of your yard, either grass or a problem area, into a water-wise garden with low-water plants
	Water sense EPA approved controller	Up to $200 rebate	WaterSense certified smart weather-based controller
	Rain sensor rebate	$25 rebate	for a residential rain sensor connected to a sprinkler system.
	Garden in a box	$25 off	on a professionally designed Garden In A Box, while supplies last
	Lawn removal service offered	$1 /sq ft lawn removal	All projects must be at least 200

City/State	Action Required	Reward/Incentive/ Rebate	Notes
			sq. ft.
	Sprinkler consultation	Free ?	The city works together with Resource Central to provide a series of tests on an underground lawn irrigation system that determines how efficient a system is.
	Water Saving Champions	Pledge	Pledging to save 10 gallons per day
Woodmoor, CO	Any irrigation controller with timer	$35 rebate	
	Rain sensor	$25 rebate	overrides an irrigation system when detecting rainfall
Boulder, CO	Smart controller and rain sensors		
	Misc. rebates for irrigation pieces		
Denver Water	No turf removal incentive	Sprinklers $3/each, smart controller $75	
Erie, CO	Turf Replacement	$2/sq ft (200-1000 sq ft)	More formal requires a design
Westminster, CO	Mostly Resource central		
Fort Collins, CO	Many incentives both residential and commercial and multifamily		
Superior, CO	Various rebates in and outside	Rebate values	
Greeley, CO	Various rebates in and outside	Irrigation rebates	
Other States Ideas			
Wichita, KS	Rain barrel	$75 rebate	purchased and installed 45 gallons or larger rain barrel
Eden Prairie, MN	landscaping	Up to $2000	80% of pretax cost up to a maximum of $2,000 for installing a native plant landscape.
Southern Nevada Water Authority	Water smart landscape	$3 /sq. ft.	Whether you do it yourself or hire a contractor, the Southern Nevada Water Authority will rebate residential properties, businesses, HOAs and multifamily properties $3 per square foot of grass removed and replaced with desert landscaping
	Smart leak detector	Up to $200	rebate of 50 percent off the purchase price or $200, whichever is less

City/State	Action Required	Reward/Incentive/ Rebate	Notes
Albuquerque, NM	Efficient Irrigation	25% up to $100 each	WaterSense Smart Irrigation Controllers, smart flow sensors, and smart pressure regulators
	Desert friendly xeriscape conversions	Up to $2/sq. ft.	Residential Customers qualifying landscapes will receive a maximum of $2.00 for every square foot of high-water use turf grass that is converted.
	Treebates	25% up to $100	for professional tree care or for the purchase of new low and medium water use trees
	Rainwater harvesting	Up to $150	based on total amount of rain that can be stored in a rain barrel or cistern.
Austin, TX	Cartridge pool filter	Up to $250	Replace sand or DE pool filter with Cartridge type pool filter
	Landscape survival tool	Up to $120	Compost, mulch and core aeration service
	Pool cover	Up to $200	New cover
	Pressure regulating valve	Up to $150	
	Rainwater harvesting	Up to $5000	Equipment to capture rainwater
	Waterwise Rainscape	Up to $500	Landscape feature to retain rainwater
Central Utah water conservancy district	Flip your strip	Up to $1.25/sq. ft.	to homeowners who convert their current lawn filled park strip to a water efficient design
	Localscapes reward	Reward	Localscapes is an approach to landscaping designed specifically for Utah. You could qualify for cash rewards and a free review of your Localscapes landscape plan.
Cascade water alliance	Free gardening classes		
Tempe, AZ	Treebate	100% up to $75	for the purchase price of desert plants. Qualifying plants include trees, shrubs, cacti, succulents and groundcover.
	Gray water recycling	Up to $200 per household	for the purchase of gray water system components
Tucson, AZ	Rainwater harvesting	Up to $750	For families with an income equal to or less than 100% of the Federal Poverty Level (FPL) will received a grant of up to $750.
Contra Costa County, CA	Flume smart home water monitor	Instant rebate	purchase a Flume Smart Home Water Monitor
	Mulch coupons		Water less when you add mulch

City/State	Action Required	Reward/Incentive/ Rebate	Notes
			to your landscape
Cucamonga Valley Water District	Soil moisture sensor system	$160 rebate	
East Bay Municipal Utility District	Greywater	$50 rebate	for a greywater system 3-way diverter valve that redirects water from your clothes washer to your landscape.
Additional Incentives Found			
	Convert to a drip system from sprinklers	25 cents /sq. Ft. up to 2000 sq ft	converting existing sprinkler systems to drip irrigation systems.
	Sprinkler nozzles	$2 per nozzle when more then 30 replaced	
	Artificial turf	Up to $400	Replace turf with artificial
	Landscaping classes	free	Hosted by city
	Downspout redirects		devices that redirect rainwater from our storm drains to a pervious landscaped area that naturally filters runoff,
	Pool removal rebate	Up to $750	
	Water smart checkup	Free	Site specific recommendations

Appendix C: HOA Toolkit - Useful Content

HOA Toolkit Ideas.

HOA Landscaping Rules. The HOA laws of Colorado prohibit associations from adopting covenants that ban or restrict xeriscaping, require owners to use turf grass, or require owners to violate water use restrictions found in Section 37-60-126.

Water reduction plan ideas.

a. Reduce irrigated areas
    i. Start with most labor intensive turf to mow or maintain
    ii. Pick irrigation zones that are far from the main water source due to likelihood of having the most future leaks in long underground lines.
    iii. Pick steep slopes and replace turf with waterwise crawling junipers or maybe native no mow grasses.
    iv. Replace a larger turf area with a community flower garden or quiet space.
    v. Work around the edges of turf areas and reduce the total turf square footage by adding rock or mulch areas and move sprinklers into the space while replacing old sprinkler heads with water wise heads.
b. Sprinkler/irrigation evaluation
    i. Schedule a Commercial irrigation evaluation
    ii. Pressure test individual zone supply lines or monitor water volumes per zone to be vigilant for leaks underground.
    iii. Watering times each month by type of sprinkler heads recommended by Denver Water
    iv. Transition areas of aerial spray to drip irrigation to eliminate evaporation
    v. Replace old sprinkler heads with water wise heads that reduce fine mist sprays.
    vi. Irrigation tips from Denver Water
    vii. Install a rain/moisture freeze and wind sensors to limit irrigating times
        1. A rain sensor can automatically pause watering if a sufficient amount of rain has been received.
        2. A ground moisture sensor is similar and some are wireless so they could be moved around to better understand irrigation quantity.
            a. Many wired and wireless versions exist
        3. Freeze sensors can stop/pause the irrigation so sidewalks and streets are not turned into an icy liability.
        4. Wind sensors can pause irrigation until high winds calm down.
c. Replace turf with water wise options
    i. Replace sections of turf with native grass
    ii. Replace sections of turf with ornamental grasses
    iii. Add a community edible garden
    iv. Add a community flower garden
    v. Add a rock or mulch garden

d. HOA member water wise awareness plan (in older complexes thousands of gallons could be saved by incentivising fixture replacement or repair).
    i. Water Sense fixtures when units share a water tap.
        1. Toilets

2. Aerators
3. Showers
4. Washing machines
5. Dishwashers
6. Drips

e. Restrict car washing on site with a hose
   i. It can use 2 to 4 times as much water to wash a car with a hose rather than take it to a carwash.

f. Encourage using brooms to clear garages and sidewalks
   i. Moving leaves or loose dirt with a hose should be discouraged

g. Discuss adjusting HOA guidelines to better adapt to today's water issues.
h. Commercial resource Colorado WaterWise - CII Water Efficiency Resources

i. Define water usage per person or unit and show how your community is able to cut water usage as repairs and adjustments take place.

A Colorado HOA success story. "How One Neighborhood Saved Millions of Gallons of Water With Native Plants"

Direct benefits to an HOA to cut water use

A. Financial savings for the HOA due to savings on water and maintenance.
B. Creates more visually interesting spaces both summer and winter.
C. Members of the HOA may feel empowered by the water saving metrics.
D. Replacing turf with a xeric garden with benches and quiet spaces may be more attractive to the members.
E. Can reduce water damage to buildings and streets.
F. Will cut down on both pesticides and fertilizers and application costs.
G. By creating water wise areas you are already creating drought tolerant spaces.
H. When HOA's remove turf and replace with xeric they are actually building a form of insurance if and when Denver Water ever needs to stop all outdoor irrigation for a water emergency.

Definitions

WaterSense: a national program that makes it easy to choose products that use less water without sacrificing quality or product performance. At Denver Water

Acre Feet: One acre foot is a body of water one acre in size (43,560 square feet) and one foot deep.

Smart Irrigation Controllers: on site or remote weather sensors and on-site soil moisture sensors.

Greywater: is the domestic wastewater from all sources except the toilets.

Smart Home Water Monitor: Flume II is a water main wifi enabled monitor. It can be installed in 10 minutes by virtually anyone. It can detect water leaks as small as a dripping faucet (0.01 and 0.03 gallons per minute (GPM)). Contra Costa County, CA has an incentive to install these. Flume Water | Smart Home Water Monitor | Water Leak Detector this could be incentivized to all property owners or the city could have a certain number for loaners. It does seem to be a very useful tool to tell how much water is being used per zone and in the home. This type device has the ability to really ratchet up the awareness of our water usage. This particular unit mounts on the water meter in the pit by the street or in the basement. It is truly plug and play. Another two options to the Flume II are Flow or Stream Labs.

Flip your Strip: Incentives to remove grass between the sidewalk and the street and plant xeric. These little strips are hard to only water the turf so eliminating the turf eliminates much wasted water. Too much water in these locations can soften the infrastructure supporting the city's curb and gutter, possibly creating potential for street damage.

Tapestry Lawns: A living xeric plant dense “lawn” seen here.

Lakewood

Water Conservation Plan for the City of Lakewood Pursuant to HB 22-1151

Lakewood Advisory Commission (LAC)
Sustainability Subcommittee

City of Lakewood

February 6, 2023 City Council Study Session

Lakewood

Why is this important?

- Water conservation is an active priority for Coloradans.
- House Bill 22-1151 signed into law in June 2022.
- Work with stakeholders to help with funding for homeowners.
- Create and execute an equitable plan for all Lakewood residents.

Lakewood

Assignments

Summary of City Council LAC Assignment from May 2022

1. How do we leverage the state turf replacement funding?
2. What are other municipalities doing to help residents reduce outdoor water usage?
3. How can covenant-controlled communities reduce their outdoor water usage?
4. Are there any municipal codes adjustments that need to be made to support water-wise landscaping?

Lakewood

Process

- Survey what other cities and municipalities are doing in Colorado.
- Review literature on water conservation.
- Check Homeowners Association (HOA) rules and research how to work with HOAs.
- Review current code.
- Consult with staff of the sustainability division.
- Discuss with LAC Sustainability Subcommittee and full Commission.

Assignment #1: Find out how the City can leverage the upcoming state turf replacement funding.

Create a residential Outdoor Water Efficiency program.

- Apply for grant funds.
- Incentivize restricting water use and conservation practices.
- Start and assess program at 2 years to promote long term plans.
- Collaborate with City Staff on current conservation work.

Assignment #2: Summarize what other municipalities are doing to help residents reduce outdoor water usage.

Resource Central contracts

- Garden in a Box
- Grass to garden
- Lawn removal
- Smart controllers, low flow sprinklers
- Master Class or Water Wise landscaping seminars for all communities

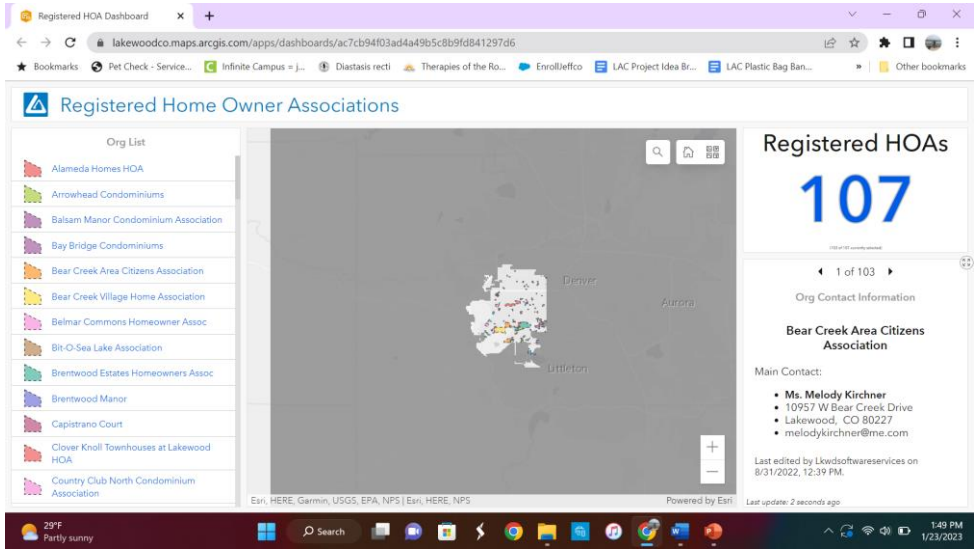
Current examples

- Xeriscape – O'Kane Park, Kendrick Lake
- Lakewood's Sustainable Neighborhoods
- Incentives with discounts, rebates, water saving champions, and free workshops
- Permanent water restrictions vs voluntary restrictions

Assignment #3: Develop guidance on how covenant-controlled communities can reduce their outdoor water usage.

HOA toolkit

- Provide resources that follow the HOA laws to reduce outdoor water use.
- Native grass, xeriscaping and low flow tech templates
- Provide examples of how other HOA's have adjusted to a conservation plan.



Assignment #4: Review the existing municipal code to identify language that may need to be adjusted to encourage waterwise landscaping.

Current language only references xeriscape gardens exempt from height limitations.

- Provide list with pictures of native grasses and expected length.
- Detail what constitutes an unlawful condition on property with Xeriscaping.
- Restrict use of non-native grasses to promote water conservation.

Lakewood

Recommendations

1. Develop a Residential Outdoor Water Efficiency Project, the first step of a long-term ongoing Community Water Conservation Program and develop a resource plan for project implementation.
2. Establish a partnership with an organization like Resource Central to create a Residential Outdoor Water Efficiency Project.
3. Use the research and information from the LAC to develop an HOA Toolkit focused on water conservation.
4. Review the Municipal Code and develop proposed revisions that will help reduce outdoor water use and align with the City's adopted water conservation goals, while taking into consideration neighborhood values and the importance of code enforcement responsibilities related to noxious weeds, fire hazard, and aesthetics.

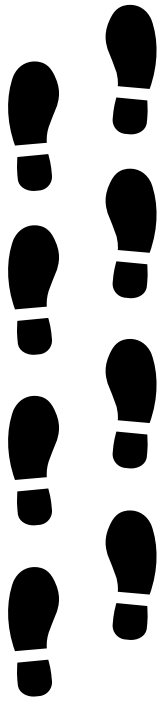
Lakewood

An Equitable Plan

- Find ways to reach all communities of all income levels
- Provide giveaways for water-wise products
- Create multilingual plans and surveys to match community needs
- Generate a grassroots network and outreach to ensure access regardless of age or disability

Lakewood

Next Steps: City of Lakewood



Lakewood

LAC Sustainability Commissioners

Andrea Gelfuso
Kiplund Kolkmeier
Elisabeth Moolenaar
Neil Preister
Karen Sweeney Tucker
Nate Wightman
Glenn Weadock

City of Lakewood Staff

Jeffrey Wong
Jay Robb

STAFF MEMO

DATE OF COUNCIL STUDY SESSION: FEBRUARY 6, 2023/ AGENDA ITEM NO. 4

To: Mayor and City Council

From: The Sustainability Subcommittee of the Lakewood Advisory Commission
Jay Robb, City Clerk, 303-987-7081

Subject: **UPDATE ON THE WATER CONSERVATION AND HB22-1151 FROM LAKEWOOD STAFF**

SUMMARY STATEMENT: In response to House Bill 22-1151, which created a state Turf Replacement Program, the Lakewood City Council requested the Lakewood Advisory Commission (LAC) to research and make recommendations based on this legislation.

BACKGROUND: The state Turf Replacement Program was charged to develop measures to incentivize water-wise landscapes and create a state program to finance the voluntary replacement of irrigated turf.

Between June 2022 and December 2022, the Sustainability Subcommittee of the LAC worked with Jonathan Wachtel, Planning Manager, and Jeff Wong, Senior Planner, with the City's Sustainability Division to analyze the legislation and proposed the best recommendations for the City of Lakewood.

BUDGETARY IMPACTS: City staff applied for a $100,000 Colorado Water Conservation Board grant to support a residential outdoor water conservation incentive program. The city is expected to receive notice of award in March 2023.

STAFF RECOMMENDATIONS: That the City Council take the report and recommendations from the LAC into consideration and consider the assignment closed.

ALTERNATIVES: The City Council could ask for additional research or recommendations from the LAC related to water conservation measures in the community.

PUBLIC OUTREACH: This meeting was advertised through the normal channels. Additionally, this project has been discussed and presented in several, public LAC meetings.

NEXT STEPS: The Sustainability Subcommittee of the LAC will continue to monitor state and local issues related to water conservation that could impact the City of Lakewood.

ATTACHMENTS: PowerPoint Presentation

REVIEWED BY: Kathleen E. Hodgson, City Manager
Benjamin B. Goldstein, Deputy City Manager
Alison McKenney Brown, City Attorney

Lakewood
Colorado

STAFF MEMO

DATE OF COUNCIL STUDY SESSION: FEBRUARY 6, 2023/ AGENDA ITEM NO. 5

To: Mayor and City Council

From: Travis Parker, Planning Director, 303-987-7908
Amy DeKnikker, Housing and Neighborhood Support Supervisor, Comprehensive Planning and Research

Subject: **UPDATE ON THE STRATEGIC HOUSING PLAN**

Introduction and Purpose: This memo is an informational update on the Strategic Housing Plan currently being developed within the Comprehensive Planning and Research Division. No action is requested of Council at this time.

State House Bill 21-1271 establishes a new program to support local governments in developing affordable housing strategies; the program is administered by the Department of Local Affairs (DOLA). The DOLA program recognizes that affordable housing is one of the biggest issues facing the state. In spring 2022, Lakewood was awarded grant funding from DOLA for consulting services to assist staff in creating a Strategic Housing Plan that identifies specific tools and strategies to increase affordable housing options within Lakewood. The City procured Gruen Gruen + Associates to assist in housing analysis, economic and policy research, and community engagement.

Project Update: To date most of the housing and economic data and analysis is complete and the information is drafted in the Lakewood Existing Conditions and Trends Report. In addition, interviews are being conducted with subject matter experts and stakeholders. Please note the Existing Conditions and Trends report is only the first part of the Strategic Housing Plan and does not include recommendations or strategies.

The report has identified the following:

- The average single-family home price increased 96 percent since 2015
- The average monthly apartment rent increased by 33 percent between 2017 and 2022
- Over 58 percent of renters and 21 percent of homeowners are considered cost-burdened (paying over 30 percent of income on housing costs)
- There is a 9,300-unit deficit in owner occupied units for for-sale units priced below $275,000
- 47 percent of Lakewood renters cannot afford to pay more than $1,250 in monthly rent
- 67 percent of new residential building permits were issued for multi-family and 20 percent for single-family development from 2002 to 2022.
- New residential construction permits for all housing types has declined in the last two years.
- Lakewood is estimated to grow by over 5,500 new households in the next ten years. Of those, 75 percent will be single or two person households.

Community Engagement for the Lakewood Strategic Housing Plan recently launched including the creation of the project website, found at www.LakewoodTogether.org/HousingStrategy. This project website contains background information, project timeline, community survey, and engagement opportunities for residents.

As previously mentioned, interviews are underway with housing and economic subject matter experts as well as special populations such as low-income earners, people with disabilities, seniors and people experiencing homelessness. A comprehensive housing survey has been created in English and Spanish and available on the project website. The project team plans to meet with Lakewood's Housing Policy Commission, attend City Council Ward meeting to promote the survey and host a community open house. The draft of the Strategic Housing Plan is expected to be available for public review and comment late spring with final draft and adoption in late summer of 2023. The timeline below provides more information on the planning process.