



A G E N D A

PLANNING COMMISSION

Connie Coleman-Lacadie • Phillip Combs

• Don Daniels • James Guerrero

• Nancy Hudson-Echols

• Ryan Pearson • Paul Wagemann

Wednesday, February 17, 2021

COVID-19 Meeting Notice: The Planning Commission will hold its scheduled meetings to ensure essential city functions continue. However, due to [Governor Inslee's Emergency Proclamation](#) 20-28 and its extensions, in-person attendance by members of the public in the Council Chambers at 6000 Main St. SW, Lakewood, WA will not be permitted on February 17, 2021.

Until further notice, residents can virtually attend Planning Commission meetings by watching them live on the city's YouTube channel: <https://www.youtube.com/user/cityoflakewoodwa>. Those who do not have access to YouTube can call in to listen by telephone at +1 (253) 215- 8782 and by entering Webinar ID: <https://us02web.zoom.us/j/94284602874#>

To participate in Public Comment and/or Public Hearing Testimony: Public Comments and Public Hearing Testimony will be accepted by mail, email or by live virtual comment. Send comments by mail or email to Karen Devereaux, Planning Commission Clerk, at kdevereaux@cityoflakewood.us or 6000 Main Street SW Lakewood, WA 98499. Comments received up to one hour before the meeting will be provided to the Planning Commission electronically.

Live Public Participation: To provide live Public Comments or Public Hearing Testimony during the meeting, join the Zoom meeting as an attendee by calling by telephone **Dial +1(253) 215- 8782 and enter participant ID: 94284602874#** or by going online at <https://us02web.zoom.us/j/94284602874>. Each speaker will be allowed (3) three minutes to speak during the Public Comment and during each Public Hearing. Outside of Public Comments and Public Hearings, attendees will not be acknowledged and their microphone will remain muted.

By Phone: For those participating by calling in by phone, the Chair will call on you during the Public Comment and/or Public Hearings portions of the agenda. When you are unmuted, please provide your name and city of residence.

Online: For those using the ZOOM link (<https://us02web.zoom.us/j/94284602874>), upon entering the meeting, please enter your name or other chosen identifier. Use the "Raise Hand" feature to be called upon by the Chair during the Public Comments and/or Public Hearings portions of the agenda. When you are unmuted, please provide your name and city of residence.

1. **Call to Order**
2. **Roll Call**
3. **Approval of Minutes from February 3, 2021**
4. **Agenda Updates**
5. **Public Comments**
6. **Public Hearings** None
7. **Unfinished Business** None
8. **New Business**
 - Annual Housing Report
 - Proposed 2021 Comprehensive Plan Energy & Climate Change Chapter
9. **Reports from Staff & Commission Members & Council Liaison**
 - City Council Updates/Actions
 - Written Communications
 - Future Agenda Topics
 - Regional Planning/Land Use Updates

Enclosures

1. Draft Meeting Minutes from February 3, 2021
2. Staff Report on Annual Housing Report
3. Staff Report on Proposed 2021 Comprehensive Plan Energy & Climate Change Chapter

Members Only

Please email kdevereaux@cityoflakewood.us or call Karen Devereaux at 253.983.7767 no later than Tuesday, February 16, 2021 at noon if you are unable to attend. Thank you.



**PLANNING COMMISSION
REGULAR MEETING MINUTES
February 3, 2021
Zoom Meeting
6000 Main Street SW
Lakewood, WA 98499**

Call to Order

Mr. Don Daniels, Chair called the ZOOM meeting to order at 6:30 p.m.

Roll Call

Planning Commission Members Present: Don Daniels, Chair; Paul Wagemann, James Guerrero, Ryan Pearson, Connie Coleman-Lacadie, Phillip Combs

Planning Commission Members Excused: Nancy Hudson-Echols

Staff Present: Dave Bugher, Assistant City Manager for Development Services; Tiffany Speir, Long Range & Strategic Planning Manager

City Council Liaison: Paul Bocchi

Approval of Minutes

MOTION: To approve the January 20, 2021 meeting minutes as drafted.

SECONDED. PASSED 6 - 0.

Agenda Updates

At the request of Commissioner Guerrero, the presentation on parking was moved to occur prior to the action on the proposed Lakewood Station District Plan and Development Code.

Public Comments

This meeting was held virtually to comply with Governor Inslee's Emergency Proclamations 20-28 and its addendums. Citizens were encouraged to virtually attend and to provide written comments prior to the meeting. No public comments were received.

Public Hearings

None

New Business

Parking Requirements in Lakewood

Commissioner Guerrero provided a presentation to the Commission about current parking requirements in Lakewood's municipal code, analyses and predictions of how many parking spaces may be needed in the near future given costs and changes to transportation over time.

Unfinished Business

Lakewood Station District Subarea (LSDS) Plan and Hybrid Form-Based Code Update

Ms. Tiffany Speir provided responses to Commission questions raised on January 20 regarding parking requirements and housing affordability and the plan to create a Green Street along Occidental within the subarea boundaries. Ms. Lisa Grueter, BERK Consulting, was also present to answer questions.

The Planning Commission discussed the updated draft LSDS Plan and Development Code. Members Wagemann voiced their concerns over affordable housing and preventing displacement of current residents of the subarea as redevelopment occurs. They also voiced concerns regarding the costs for developers to provide parking versus housing affordability and how many parking spaces would actually be used.

MOTION: To recommend adoption of the Lakewood Station District Subarea Plan and Hybrid Form-Based Code as included in proposed Resolution 2020-01.

SECONDED. DISCUSSION.

MOTION TO AMEND: To amend the proposed LSDS Development Code as follows:

18C.600.610 Parking.

A. *Off-Street Parking Requirements.* The following off-street parking requirements supersede the requirements in Chapter 18A.80 LMC. Uses not listed below must comply with the requirements in Chapter 18A.80 LMC.

B.

18C-600-1. Off-Street Parking Requirements

Land Use	Vehicular Parking Requirement	Bicycle Parking Requirement
Residential	Single-family: 2 per dwelling unit Accessory dwelling: 1 per dwelling unit, provided that no additional parking is required when located within one-quarter mile of the Sounder Station. (RCW 36.70A.698) Senior citizen apartments: No minimum 4 per 3 dwelling units Multifamily housing: 1.25 spaces per dwelling unit No minimum	Meet rates and standards of: Chapter 18A.80
Retail, Services, Restaurants	2 per 1,000 GSF minimum; 3 per 1,000 GSF maximum	Meet rates and standards of: Chapter 18A.80
Office	2 per 1,000 GSF minimum; 3 per 1,000 GSF maximum	Meet rates and standards of: Chapter 18A.80
Street level retail 3,000sq.ft. or less per business	None where there is available public parking within 500' or abutting on-street parking designed to serve street level retail	Meet rates and standards of: Chapter 18A.80

B. *Parking Reductions or Increases.* The amount of required parking may be reduced or eliminated, or increased above the maximum, based on a site-specific parking study that demonstrates one or more of the following:

1. *Reduction Due to Shared Parking at Mixed-Use Sites and Buildings.* A shared use parking analysis for mixed-use buildings and sites that demonstrates that the anticipated peak parking demand will be less than the sum of the off-street parking requirements for specific land uses.

2. *Reduction Due to Public Parking Availability.* The availability of public parking to accommodate the parking demand generated by the site or building. The City may approve a reduction in the amount of required parking by up to 50 percent for any parking stalls that will be open and available to the public. On-street parking may be considered for the reduction; any new on-street parking provided will be counted toward the required parking availability.

3. *Reduction Due to Lower Parking Demand or Increase Based on Greater Parking Demand.* Demonstrating that anticipated parking demand will be less than the minimum parking required, or greater than the maximum allowed, shall be based on collecting local parking data for similar land uses on a typical day for a minimum of eight hours.

4. *Reduction for Housing in Proximity to Sounder Station (RCW 36.70A.620).* When located within one-quarter mile of the Sounder Station, an applicant may apply for an exception allowing minimum parking requirements to be reduced at least to one parking space per bedroom or 0.75 space per unit, as justified through a parking study prepared to the satisfaction of the Community Development Director or their designee:

- a. housing units that are affordable to very low-income or extremely low-income individuals.
- b. housing units that are specifically for ~~seniors or~~ people with disabilities.
- ~~c. market rate multifamily housing.~~

In determining whether to grant a parking reduction, the Community Development Director may also consider if the project is proposed in an area with a lack of access to street parking capacity, physical space impediments, or other reasons supported by evidence that would make on-street parking infeasible for the unit.

C. *Parking Location and Design.* Parking shall be located behind the [building](#) or in a [structure](#) except in locations where the parking frontage type is [permitted](#).

D. *Shared Parking.* Shared parking is encouraged to support a walkable and pedestrian-oriented Station District where people can park once and visit multiple destinations. Off-site shared parking may be authorized per the standards in Chapter [18A.80](#) LMC.

E. *Public Parking.* Public parking is permitted as a principal or accessory use in the Station District subject to the frontage and design standards.

F. *Dimensional Standards.* Parking stall and circulation design shall meet the standards of Chapter 18A.80 LMC.

SECONDED. MOTION TO AMEND PASSED 5-0 with Commissioner Combs abstaining.

ACTION ON ORIGINAL MOTION:

To recommend adoption of the Lakewood Station District Subarea Plan and Hybrid Form-Based Code as included in proposed Resolution 2020-01 and amended, provided a new finding of fact is also added explaining the Planning Commission's concern regarding housing affordability needs and risk of displacement in the subarea.

PASSED 5-0 with Commissioner Combs abstaining.

The City Council would begin consideration of the LSDS Plan, Development Code and SEPA Planned Action on March 8.

Report from Council Liaison

Councilmember Bocchi updated the Commission on the ongoing search for a new City Councilmember following Councilmember Simpson's resignation at the end of 2020. Commissioner Guerrero offered to present his information on parking in Lakewood to the City Council; Councilmember Bocchi state he would bring the offer to the Council.

Reports from Commission Members and Staff

Future Agenda Topics

February 17: Annual Housing Report and introduction of proposed 2021 Comprehensive Plan amendment 2021-01, a new Energy & Climate Change Chapter

March 3: 2021 Comprehensive Plan Amendments Review

Regional Planning Land Use Updates

None

Other

None

Next Regular Meeting: The next regular meeting would be held on March 3, 2021.

Meeting Adjourned at 7:55 p.m.

Don Daniels, Chair
Planning Commission 02/03/2021

Tiffany Speir, Recording Secretary
Planning Commission 02/03/2021



TO: Planning Commission
FROM: Dave Bugher, Assistance City Manager for Development Services
DATE: February 17, 2021
SUBJECT: Annual Housing Report: 2020

Introduction: Each year, the community and economic development department prepares an annual housing report from the previous year. The report generally focuses on housing production. The report also provides information on housing trends within Lakewood and Pierce County.

This year's report has information gathered from a variety of source documents. Topics covered:

- Housing and Urban Development (HUD) overview of current housing in the Tacoma-Lakewood area (November 2020);
- Rents in Lakewood and surrounding communities;
- Lakewood's housing production 2020;
- Recap of the City's CDBG/HOME housing programs;
- Annual report on the City's Rental Housing & Safety Program (RHSP);
- Recap of "The State of Affordable Housing in Pierce County, 2020"; and
- What to expect for the remainder of 2021.

HUD's overview of current housing in the Tacoma-Lakewood area:

Economic Conditions:

1. As of November 1, 2020, the population of the metropolitan area was estimated at 918,700, reflecting an average annual increase of 14,050, or 1.6 percent, since July 2015; nearly 70 percent of the increase was attributable to net in-migration. By comparison, from July 2010 to July 2015, population growth averaged 9,275 people, or 1.1 percent, a year, and 43 percent of the growth was because of net in-migration¹.
2. The stronger rate of population growth in the metropolitan area since 2015 is largely because of increased net in-migration from King County (home to the city of Seattle), which is partly attributable to the disparity in housing costs; the average home sales price in Pierce County has been approximately 50 percent less than the average home sales price in King County since 2013. The most recent data available estimates a net flow of 7,600 people from King County to Pierce County in 2018, compared with 2,500, 4,600, and 3,850 in 2017, 2016, and 2015, respectively (U.S. Census County-to-County Migration Flows).
3. The interventions taken in mid-March to slow the spread of COVID-19, including a stay-at-home order (partially lifted in June 2020) and ongoing social distancing mandates, caused economic activity in the metropolitan area to slow dramatically. Before the pandemic, economic conditions in the metropolitan area were strong, with 9 years of consecutive nonfarm payroll growth averaging 6,200 jobs, or 2.1 percent, annually from 2011 through 2019. During the 12 months ending October 2020, which includes 4 full months before the pandemic, payrolls totaled 313,900, reflecting a decline of 12,000 jobs, or 3.7 percent.
4. The effects of the most recent stay-at-home order, issued mid-November, 2020, are not captured in this report.
5. Part of the relationship between the Tacoma-Lakewood metropolitan area and King County is illustrated by commuting patterns. According to the most recent data available (before the pandemic), 48.9 percent of employed Tacoma-Lakewood metropolitan area residents, or approximately 186,100 people, commute outside the county for work, of which approximately 72 percent commute to King County (Census Bureau, Bureau, On the Map, 2018 data).

Quick Facts about Tacoma-Lakewood:

- Current sales market conditions: **very tight**.
- Current apartment market conditions: **tight**.
- Joint Base Lewis-McChord (JBLM), the largest U.S. Army-led joint base in the country, has 38,300 active-duty military, National Guard, and Army Reserve members and 16,050 civilian personnel (Army Stationing and Installation Plan [ASIP] as of October 2019). In addition to the active duty military, 46,500 family members and 39,600 retirees live within a 40-mile radius of the base.

Sales Market Conditions

1. Sales housing market conditions in the Tacoma-Lakewood metropolitan area are currently very tight, with an estimated sales vacancy rate of 0.9 percent, down from 2.6 percent in 2010. A limited supply of for-sale inventory, in conjunction with strong

¹ Lakewood's historic growth rate has remained the same ever since incorporation. Average annual growth is around 0.5 percent per year.

population and economic growth before the pandemic, resulted in increased demand for sales housing and contributed to the decline in the vacancy rate.

2. The prolonged shortage of inventory, coupled with increased demand from King County residents, has resulted in strong home sales (including new and existing homes) price growth in the Tacoma-Lakewood metropolitan area that averaged more than 9 percent, annually, from 2015 through 2019 (Zonda). During the 12 months ending October 2020, the average sales price in Pierce County was \$417,300, up 9 percent from a year ago. By comparison, the average sales price of a home in King County was \$770,500 during the 12 months ending October 2020, up 7 percent from a year ago.

3. Approximately 13,200 existing homes sold in the Tacoma-Lakewood metropolitan area during the 12 months ending October 2020, down 23 percent from a year ago.

4. In the Tacoma-Lakewood metropolitan area, 57 percent of homes sold during the 3 months ending October 2020 sold above the list price, compared with 43 percent a year ago, and the average days on the market declined from 18 to 6 (Redfin, a national real estate brokerage).

5. In September 2020, 3.3 percent of home loans in the Tacoma-Lakewood metropolitan area were seriously delinquent (90 or more days delinquent or in foreclosure) or had transitioned into real estate owned (REO) status; that rate was up from 0.9 percent in February 2020, before the pandemic and compared with a high of 10.0 percent during the aftermath of the Great Recession in 2012.

6. In 2020, the percentage of adults in the Seattle MSA living in households not current on rent or mortgage payments, where eviction or foreclosure in the next 2 months is either very likely or somewhat likely, increased from 20 percent during the week ending August 31 to 22.6 percent during the week ending November 9 (U.S. Census Household Pulse Survey).

7. New home construction, as measured by the number of single family homes permitted, has been relatively flat since the housing market recovered in 2013, except for an uptick in 2017, averaging 2,525 new homes a year. Rising labor, land, and materials costs have suppressed growth in new home construction from keeping pace with increased demand caused by elevated net in-migration for several years and improved access to credit.

Apartment Market Conditions

1. Apartment market conditions in the Tacoma-Lakewood metropolitan area are currently tight, with a 2.9-percent vacancy rate during the third quarter of 2020, compared with 3.1 percent during the third quarter of 2019, whereas the average asking rent increased almost 2 percent, to \$1,162 (Reis, Inc.).

2. Despite increased apartment construction since 2014, the vacancy rate remained under 4.0 percent and rent growth averaged almost 6 percent, annually, through 2019. During the most recent quarter, rents averaged \$954, \$1,022, \$1,223, and \$1,544 for studios, one bedroom, two-bedroom, and three-bedroom units, respectively.

3. The largest decline in the vacancy rate, from 7.4 to 4.3 percent, was in the McChord Air Force Base market area, which includes areas closest to JBLM (Springbrook), and the average asking rent increased 3 percent, to \$943, the lowest asking rent among all seven market areas.

4. Apartment construction, as measured by the number of multifamily units permitted, has generally increased since 2014 because strong population growth and a limited supply of for-sale housing continue to encourage development. Construction activity moderated during the past 2 years, however, as builders wait to see how the market responds to the record level of multifamily units permitted in 2018. In addition, some builders reported postponing new developments in 2020 until the effects of the pandemic were better understood.

5. City staff has also received reports that financial institutions are less likely to provide apartment financing at least in the interim. This condition is expected to change as the pandemic lessens.

Rents

1. Using the Rent Café website, the City has collected information on rents within Lakewood and within the region. Figure 1 and Figure 2 provide information on Lakewood rent ranges and occupied housing units. Table 1 shows that Lakewood's rents are below national levels by \$176 per month.

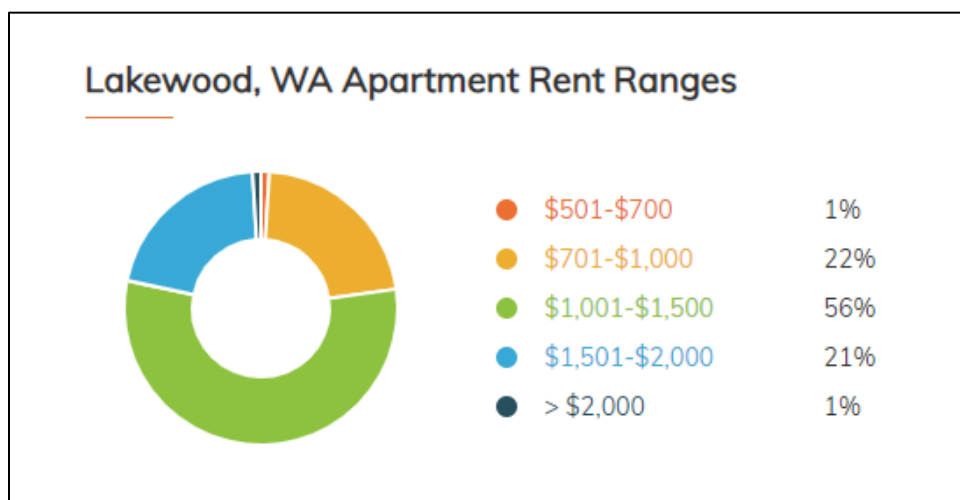


Figure 1

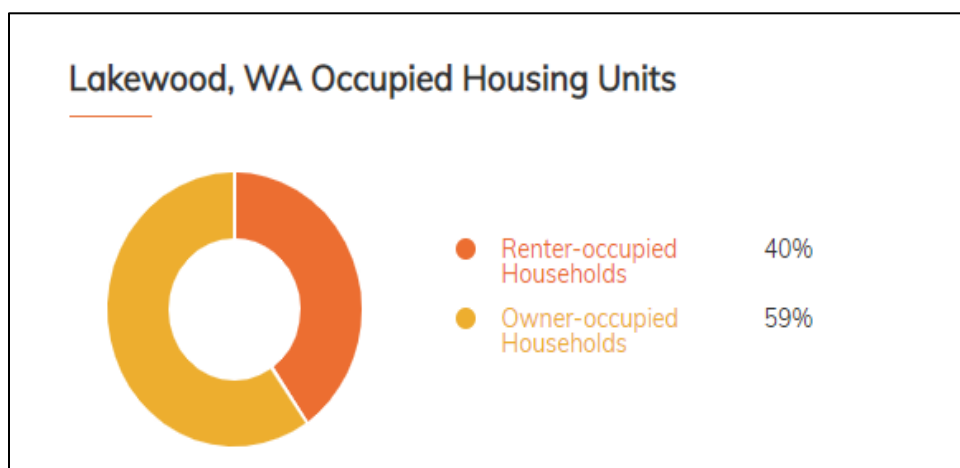


Figure 2

Table 1 Lakewood Rent Trends							
Descriptor	Jul 2018	Nov 2018	Mar 2019	Jul 2019	Nov 2019	Jul 2020	Feb 2021
Lakewood	\$1,084	\$1,143	\$1,150	\$1,167	\$1,207	\$1,245	\$1,286
National	\$1,418	\$1,428	\$1,432	\$1,468	\$1,475	\$1,464	\$1,462

2. How Lakewood's rents compared to other cities and/or unincorporated areas, see Table 2 below.

Table 2 Apartment Rents by Community			
Location	Average Rent	Y-o-Y Change	Average Apartment Size (square feet)
Seattle	\$1,933	-10%	693
Federal Way	\$1,509	2%	872
Auburn	\$1,531	6%	865
Fife	\$1,442	6%	854
Tacoma	\$1,407	4%	833
Lakewood	\$1,285	6%	804
Lacey	\$1,339	6%	849
Parkland	\$1,324	3%	911
Spanaway	\$1,255	16%	684
Puyallup	\$1,594	4%	956

3. Using the average median income per household number in Lakewood, \$50,175, based on current housing market conditions as of February 2021, what can a person afford to rent? *Based on the date of this report, assuming rent at 30%, monthly debt at 14%, monthly expenses at 39 percent, and minimal savings, there are eight rentals available in Lakewood.* Rent will vary, \$1,000 to \$1,525 per month.

Lakewood Housing Production 2020:

1. The city produced a total of 161 new multifamily and single family units. Thirty-eight units were demolished providing a net gain of 123 dwelling units and 6 accessory dwelling units. Table 3 provides a breakdown.

Table 3 Lakewood Housing Production	
Type	Units
New single family	+54
New duplex	+2 (1 property)
New triplex	+3 (1 property)
New Multifamily	+102
Accessory dwelling unit (ADU)	+6
Sub-total	+167
Minus demolitions	
Single family	-32
Triplex	-6 (1 property)
Total	+129

2. Table 4 provides information on platting activity for 2020. The level of activity is similar from year-to-year.

Table 4 2020 Platting Activity		
Type	No.	No. of lots
Short plats, applications pending	4	9
Short plats approved, but not finaled	7	23
Short plats finaled	6	15
Short plats denied	2	4
Preliminary plats, applications pending		
Preliminary plats approved, but not finaled	2	35
Preliminary plats finaled	1	20
Preliminary plats denied		
Plat Alteration approved, but not finaled	1	8
Plat Alteration Pending	1	2
Totals	24	116

Rental Housing Safety Program (RHSP)

1. Table 5 provides rental housing information for the last three years ending 2020.

Table 5 Rental Housing Safety Program (RHSP)			
	2018	2019	2020
Registered Properties	2,219	1,873	1,765

Table 5 Rental Housing Safety Program (RHSP)			
	2018	2019	2020
Registered Units	11,328	11,765	10,487
Sub-total	13,547	13,638	12,252
SFR & duplex properties registered	1,776	1,441	1,325
Multifamily properties registered	443	432	440
Sub-total	2,219	1,873	1,765
SFR & duplex units registered	2,058	1,343	1,003
Multifamily units registered	9,270	10,422	9,484
Sub-total	11,328	11,765	10,487
Total number of initial property inspections	499	459	227
Total number of property re-inspections	221	321	297
Total number of initial unit inspections	1,777	1,294	554
Total number of unit re-inspections	1,463	791	901
Percentage passed on initial property inspection	16%	10%	15%
Percentage passed on second property inspection	92%	88%	36%

2. One of the major changes in the 2020 RHSP is the shift away from single family rentals. Because of the eviction moratorium, plus the heated housing market, given the opportunity, single family owners who had rentals, sold their properties.

3. RHSP operations were especially difficult this past year. With the ongoing pandemic, landlords and tenants were fearful of conducting inspections. A small number of tenants used the pandemic to purposely deny access, not out of fear of becoming ill, but for other reasons. As a result of these situations, plus the on-again, off-again stay-at-home orders issued by the governor, these events restricted our ability to administer the program. When inspections did take place, and repairs required, owners/landlords had a difficult time getting contractors and maintenance completed because of supply chain problems, permitting issues, and a labor supply shortage. The city did receive several requests to forgo payment of RHSP registration fees.

4. On the positive side, the city did use the RHSP database to keep property owners/landlords informed of a variety of housing related issues in an ever-changing environment. The use of the database proved to be an invaluable tool when the city began

disbursing coronavirus relief funds during the fall/winter time period. Because of COVID, since the number of inspections were down this year, we did use the time to produce mass mailings for property owners/landlords that had not registered, or had not corrected construction issues in past years; the results were surprisingly effective. For the upcoming year, where it is appropriate, we will be pursuing the use of photo-video reinspections.

HUD CDBG/HOME Program

1. Authorized under Title 1 of the Housing and Community Development Act of 1974, the Community Development Block Grant (CDBG) program is a grant to local jurisdictions to assist in the development of viable communities. To be eligible, cities must have population of at least 50,000 and counties a population of 200,000 (excluding metropolitan cities therein). Funds are to be expended to principally benefit low- and moderate-income individuals through the provision of: a) decent housing; b) a suitable living environment; and c) expanded economic opportunities.
2. Created by the National Affordability Housing Act of 1990, the HOME program's primary intent is to increase the supply of decent, affordable housing to low- and very low-income households. Eligible activities include: a) homeowner rehabilitation; b) homebuyer activities; c) rental housing, including capitalization of project reserves and buy down of debt; d) tenant-based rental assistance; e) new construction of low-income housing (rental/homeownership); f) property acquisition and project development, including on-site improvements; and g) project-related soft costs (architectural, engineering, financial counseling, affirmative marketing, and fair housing services)
3. Funds received must be committed to an eligible activity within 2 years and must be expended within 4 years. Lakewood qualifies for HOME funding through the consortium process as a member of the Tacoma-Lakewood HOME consortium.
4. Project in the pipeline for the federal government's FY 2020-2022 are listed in Tables 6, 7, and 8.

TABLE 6 FY 2020 (July 1, 2020 – June 30, 2021)	
CDBG	<ol style="list-style-type: none"> 1. Major Home Repair- 10 single family households. Funded 2020; \$506,863.07. Completion 2021. 2. Emergency Assistance for displaced Residents- 10 individuals assisted. Funded 2020; \$45,000. Completion 2021-22.
HOME	<ol style="list-style-type: none"> 1. Habitat- 15121 Boat St SW – Construct 9 new single family homes. Funded 2020; \$600,000. Completion in 2024. 2. Homeownership Center of Tacoma- 9006 Washington Blvd. SW. – Construct 2 new single family homes. Funded 2017; \$250,000. Completion in 2021. 3. TBRA- Assist approx. 100 households with rent assistance. Funded 2020; \$148,464. Completion 2021. 4. LASA- 5516 Fairlawn Dr. SW – Acquisition of one additional contiguous parcel and redevelopment. Funded 2020; \$396,296 (2060 County funds). 5. Housing Rehabilitation projects- 2 single family households. Funded \$120,000 program income. Completion 2021. 6. Down Payment Assistance- 1 single family household acquisition. Funded 2020 program income; \$10,000. Completion 2021.

CDBG-CV 1 & 3	<ol style="list-style-type: none"> 1. Small Business Emergency Services Grant Program- Funded 2020; \$350,611 CDBG CV1. Completion 2021. 2. Emergency Payments for Rental/Mortgage Assistance- Assist 150+ households. Proposed funding 2021; \$456,726 CDBG-CV3 and \$145,305.73. Completion 2021. 3. Housing/Foreclosure Assistance- Assist 100+ households. Proposed funding 2021; \$100,000 CDBG-CV1. Completion 2021-22.
NSP1	1. NSP Abatement Fund- Demolish 3 dangerous structures. Funded \$75,000 program income. Completion 2021.
NSP3	1. Habitat- 15210 Portland Ave. SW- Construct 1 new single family home. Funded 2021; \$49,500. Completion 2024.

TABLE 7
FY 2021
(July 1, 2021 – June 30, 2022)

CDBG	<ol style="list-style-type: none"> 1. Major Home Repair- 10 single family households. Funding TBD 2021. Completion 2022. 2. Emergency Assistance for displaced Residents- 10 individuals assisted. Funded 2020; \$45,000. Completion 2021-22. 3. Oakbrook Neighborhood Sidewalk Improvements- Proposed infrastructure. Funding TBD 2021. 4. Housing/Foreclosure Assistance- Assist 100 households. Funding TBD 2021. 5. Fair Housing Counseling- Assist 50 individuals. Funding 2021 Administration. Completion 2022.
HOME	<ol style="list-style-type: none"> 1. Habitat- 15121 Boat St. SW- Ongoing 2. Homeownership Center of Tacoma- 9006 Washington Blvd. SW- Ongoing 3. LASA- Gravelly Lake Dr. Service Center/5516 Fairlawn Dr. SW/and acquisition of one additional contiguous parcel- Redevelopment – Funding 2021 \$300,000 (additional funding includes 2060/conventional/ governmental funding). Acquisition 2021-22; Completion 2025-26 4. Housing Rehabilitation projects- 2 single family households. Funded \$120,000 program income. Completion 2022.
CDBG-CV 1 & 3	<ol style="list-style-type: none"> 1. Emergency Payments for Rental/Mortgage Assistance- Ongoing 2. Housing/Foreclosure Assistance- Ongoing
NSP1	1. NSP Abatement Fund- Demolish 3 dangerous structures. Funded \$75,000 program income. Completion 2021.
NSP3	1. Habitat- 15210 Portland Ave. SW- Ongoing

TABLE 8
FY 2022
(July 1, 2022 – June 30, 2023)

CDBG	<ol style="list-style-type: none"> 1. Major Home Repair- 10 single family households. Funding TBD 2022. Completion 2022. 2. Fair Housing Counseling/Landlord-Tenant training- Assist 50 individuals. Funding 2021 Administration. Completion 2022. 3. Emergency Assistance for displaced Residents- 10 individuals assisted. Funding TBD 2022. Completion 2022.
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TABLE 8 FY 2022 (July 1, 2022 – June 30, 2023)	
HOME	1. Habitat- 15121 Boat St. SW- Ongoing 2. LASA- Gravelly Lake Dr. Service Center- Funding 2022 \$300,000- Ongoing 3. Housing Rehabilitation projects- 2 single family households. Funded \$120,000 program income. Completion 2023.
NSP1	1. NSP Abatement Fund- Demolish 3 dangerous structures. Funded \$75,000 program income. Completion 2021.

2020 Local Rental & Mortgage Assistance

1. Lakewood provided rental assistance through CARES Act funds received from the State of Washington (State CDBG-CV2 allocation). A total of \$621,000 was allocated for rental assistance through partnership with Living Access Support Alliance (LASA). To qualify for these funds, a household's total combined income could not exceed \$60,000/year (120% max AMI). All funds were expended with a total of 289 households being provided rental assistance.

2. Additionally, HOME funds in the amount of \$148,464 were allocated by Council as part of the 2020 Annual Action Plan to be used for an emergency tenant-based rental assistance (TBRA) program. The City opened the program on December 4, 2020 for one week only and received more than 100 applications totaling more than \$200,000 in back rent due. Contracts for this program have begun to be executed and are anticipated to be completed and all funds expended sometime in mid-February.

2020 Pierce County Housing Report

1. The Office of Community Partnerships, University of Washington at Tacoma, issued, "The State of Affordable Housing in Pierce County 2020." The report is difficult to summarize in this document, but it does serve to highlight the complex nature of providing affordable housing. If the report has a failing, it is in not recognizing the current economic conditions in the Puget Sound regions, and specifically the net migration out of King County and into Pierce County. Nevertheless, the report has some interesting insights. These have been excerpted for commission review.

2. Reasons why Housing Incentives are not Working: a) not significant enough to be enticing; b) lack of dedicated funding for fee waivers; c) incentives do not offer enough value to for-profit housing developers, making affordable housing projects not feasible; d) lack of financial support at the local level means affordable housing developers have to rely on state and federal funding; e) absence of marketing and clear information materials, including technical assistance and capacity to support developers; f) inconsistent and complicated requirements in code language.

3. Summary Assessment of Affordable Housing Environment and Potential Future Direction:

- Affordable housing incentives are largely lacking in many Pierce County governments².

² Lakewood has a significant number of incentives. These incentives include an MFTE program, recently amended ADU regulations, two subareas, a senior housing overlay in the Downtown, a special

- Many of the funds used for affordable housing projects are pass-through monies from federal and state programs. Low-Income Housing Tax Credit (LIHTC) and HOME are two major sources of funding for affordable housing development in the region. Funds from HOME can be used to build, buy, and/or rehabilitate affordable housing units for rent or homeownership or provide direct rental assistance to low-income people. Unlike LIHTC, which is financed through private funds (administered by the IRS, making it the largest affordable housing agency in the U.S.), HOME was designed to allow for design and implementation processes that are tailored to local needs and priorities. Furthermore, HOME allows for strengthening partnerships among various levels of government and the private sector in the development of affordable housing units. It also provides for technical assistance and capacity building of nonprofit housing groups. In Pierce County, the only cities that mentioned the use of this program are Lakewood and Tacoma. Pierce County relies on funds from the HOME program as well.
- Among local incentives, two came up often: the multifamily tax exemption (MFTE) and accessory dwelling units (ADUs). While Pierce County and a few cities have reported the occasional use of the 8-year MFTE in a few projects, the 12-year MFTE, which has an affordable housing requirement, has rarely been used by any cities in the County. This relates to both land use limitations, which makes multifamily housing projects less suitable for a number of smaller low-density cities, and the inadequate financial resources it provides, particularly to for-profit developers. Pierce County governments need to consider current and future employment, population, and transit centers/corridors at the regional level and allow for a form-based approach to urban development. MFTE, density bonuses, and fee waivers will make more sense if developers can see the overall financial benefits of building more houses, while providing affordable housing units. These can be in selected geographies where a higher availability of jobs and access to transit allow for the development of multifamily developments, which include affordable housing units. This approach is highlighted by the Puget Sound Regional Council. They indicate that MFTEs are most effective in mixed-use urban centers where higher densities are possible, particularly in cities that have identified such centers in their planning under the Growth Management Act (RCW 36.70a).

The document suggested three steps to move forward: 1) increasing the supply of affordable housing (which, in part, means having the financial resources, taxes, fees, etc., for assisting in building enough units to support low- and middle-income families; 2) maintenance/preservation of affordable housing units, and 3) regional coordination of affordable housing policies.

National Best Practices were also listed:

- Mandatory inclusionary zoning³

needs housing chapter in Title 18A, active CDBG/HOME programs, and a codified housing incentives program, Title 18A, Chapter 18A.90. The incentives program allows for inclusionary density bonuses, modifications to development standards (lot coverage, parking reductions, and building height), and fee reductions up to 55 percent.

³ As housing prices rise, developers and land owners are able to make greater profit for building commercial and residential developments. Inclusionary policies seek to “capture” a portion of the higher value by requiring that developers include affordable housing in developments that otherwise would not include it. In its simplest form, an inclusionary housing program might require developers to sell or rent 10 to 30 percent of new residential units to lower-income residents.

- Making use of public land for affordable housing
- Establishing commercial linkage (impact) fees to fund affordable housing development
- Requiring mixed income housing developments near transit
- Revising and/or streamlining the development review and re-zoning processes
- Incentive Zoning
- Experimenting with new building types (also to include better coordination with the Building Code Council)
- Reviewing and revising parking requirements
- Promoting regional solutions

What to expect in 2021

- Adoption of the Lakewood Station District Subarea Plan (underway)
- Implementation of the 2021 CDBG/HOME Annual Action Plan (underway)
- Distribution of CDBG-CV rental assistance funds (beginning March 2021)
- Current housing construction rate to continue in 2021, although the city may experience a slightly higher rate in the number of multifamily units
- Continuation of the RHSP
- Release of the Pierce County Buildable Lands Report (fall 2021)
- In response to PSRC's VISION 2050, Pierce County Council to establish population allocations for all of Pierce County including cities (to be determined)
- City may choose to formally join the South Sound Housing Affordability Partners (SSHAP)⁴
 - SSHAP meeting highlights: briefing government councils; confirming initial SSHAP participants; determining the SSHAP's structure and define desired outcomes; developing an interlocal agreement for circulation; and approving a work plan that defines the timing and sequence of SSHAP's launch and next steps.

Local inclusionary housing programs can vary. Some of this variation is related to state policy: the legal authority for municipalities to implement an inclusionary housing policy depends on whether or not state law allows it. However, even within the same state, local jurisdictions adopt different programs in response to local conditions. Lakewood does have a voluntary inclusionary housing program in place.

⁴ Recognizing the magnitude of housing issues across the region, Tacoma Mayor Victoria Woodards, County Executive Bruce Dammeier, and County Councilmember Connie Ladenburg invited elected leaders from across Pierce County to learn more about the local housing market and its impacts, including the Mayors of each city and town and leaders from the Puyallup Tribe. The group also chose to explore whether there were opportunities for establishing partnerships. Discussions focused on shared interests as well as the unique needs of each jurisdiction. These leaders committed to a four-meeting series in 2019.

- Participating leaders and UWT's Dr. Ali Modarres shared changes in the housing market and the impacts on seniors, young people, and working families as well as our economy and transportation systems;
- A panel of private and non-profit housing developers shared how to effectively incentivize the creation of obtainable housing;
- Representatives from local government coalitions shared how collaboration has strengthened their ability to create accessible housing at all income levels; and
- The series culminated with a discussion of how governments across Pierce County might partner on this important issue.



TO: Planning Commission
FROM: Dave Bugher, Assistance City Manager for Development Services
DATE: February 17, 2021
SUBJECT: Draft Comprehensive Plan Amendment 2021-01 Energy & Climate Change Chapter

Attached is the draft Comprehensive Plan Energy and Climate Change Chapter. The document also includes a detailed section on implementation.

To maintain the current review schedule, the draft document is being presented to the Planning Commission with the understanding that it remains a work-in-progress. The draft document is going through a peer review process with a consulting agency. This peer review process has not been completed so changes can be anticipated.

This document ended up being very difficult to write since Lakewood is not full-service. All of the energy utilities are operated by either public or private agencies; water is provided by the Lakewood Water District; and public sewer is provided by Pierce County. Also, data has been difficult to gather on Lakewood's share of greenhouse gas (GHG) emissions. The current document uses an extrapolation of data gleaned from a 2015 report prepared by the Puget Sound Clean Air Agency. Further complicating the GHG inventory has been the related impacts of the COVID-10 pandemic.

Staff will provide an introduction of the draft chapter. Commission discussion would follow. The document will be presented again with edits at a future commission meeting.



Chapter 10: Energy & Climate Change

2021 Comprehensive Plan Amendment 2021-01

Lakewood Community &
Economic Development
Department

*Planning Commission
Preliminary Draft*

February 17, 2021

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ACRONYMS

COVID-19	Coronavirus Disease 2019
CO ₂ e	Carbon dioxide equivalent
EPA	Environmental Protection Agency
GHG	Greenhouse gas, limited to CO ₂ , CH ₄ , N ₂ O, and fugitive gases
LKVV	Lakeview Light and Power
MgCO ₂ e	Metric tons of carbon dioxide equivalent
MWH	Megawatt-hour (1,000 kilowatt-hours)
NLCD	National Land Cover Database
PSE	Puget Sound Energy
TP	Tacoma Power
WDOC	Washington Department of Commerce
WDOT	Washington Department of Transportation
WDOTR	Washington Department of Transportation – Rail Division
VMT	Vehicle Miles Traveled

ENERGY AND CLIMATE CHANGE CHAPTER LAKEWOOD COMPREHENSIVE PLAN

It is increasingly evident that there are dramatic relationships between greenhouse gas emissions and local transportation and land use patterns. Lakewood has opportunities to build higher density, mixed-use projects around existing public transit infrastructure, schools, parks and neighborhoods. Energy efficiency and sustainability can be further enhanced by incorporating green materials and construction practices into buildings and streetscape improvements. Sustainable development concepts such as natural resource conservation, transit-oriented development, multimodal transportation access and the encouragement of green building are integrated throughout this Comprehensive Plan Chapter.



Figure 1 (ART DAILY, June 2019)

The Energy and Climate Change Chapter:

- Describes potential climate change impacts, energy use and greenhouse gas emissions;
- Highlights key findings and recommendations;
- Defines goals for energy and climate change;
- Identifies policies and implementing tasks to address energy and climate change needs; and
- Provides a summary table identifying lead responsibilities for each implementing task.

Purpose of the Chapter

This chapter examines how the City's land use and transportation network will affect energy consumption and determines what measures can be implemented to reduce greenhouse gas emissions. The chapter provides policy direction for protecting energy resources and responding to climate change. Broadly framed goals address energy conservation, renewable energy generation and use, sustainable and responsible community revitalization. More specifically, policies and implementing tasks are designed to: provide leadership to manage climate change; promote clean and efficient transportation options; encourage sustainable and efficient energy systems; promote sustainable development; support community revitalization; and build a climate-resilient community.

What is Climate Change?

A balance of naturally occurring gases dispersed in the atmosphere determines the Earth's climate by trapping solar radiation. This phenomenon is known as the "greenhouse effect." Modern human activity, most notably the burning of fossil fuels for transportation and electricity generation, introduces large amounts of carbon dioxide and other gases into the atmosphere. Reductions in the planet's forested regions where greenhouse gases are stored is also a major contributor to the increasing

greenhouse effect. Collectively, these gases intensify the natural greenhouse effect, causing global average surface temperature to rise, which in turn affects global climate patterns.

Lakewood Today

Fossil fuels are the primary source of energy in America today. The transportation sector is the single largest consumer of fossil fuels, followed by buildings, which use large amounts of energy for lighting, heating and cooling. Studies show that greenhouse gas emissions from fossil fuels and other human activities contribute significantly to global warming. In addition to growing global, national and local concern over potential impacts of fossil fuel use and their impacts on overall environmental health, there is also widespread uncertainty about the availability and cost of energy.

As the cost of fuel increases, alternatives to private automobiles will become more economically viable. The market for renewable energy is growing each year. Increased greenhouse gas emissions (GHGs), especially CO₂ from the use of fossil fuels for energy generation and the dwindling existence of fossil fuel, coupled with its high costs, are fueling the renewable energy market. However, the generation of energy from renewable sources requires very large capital investments.

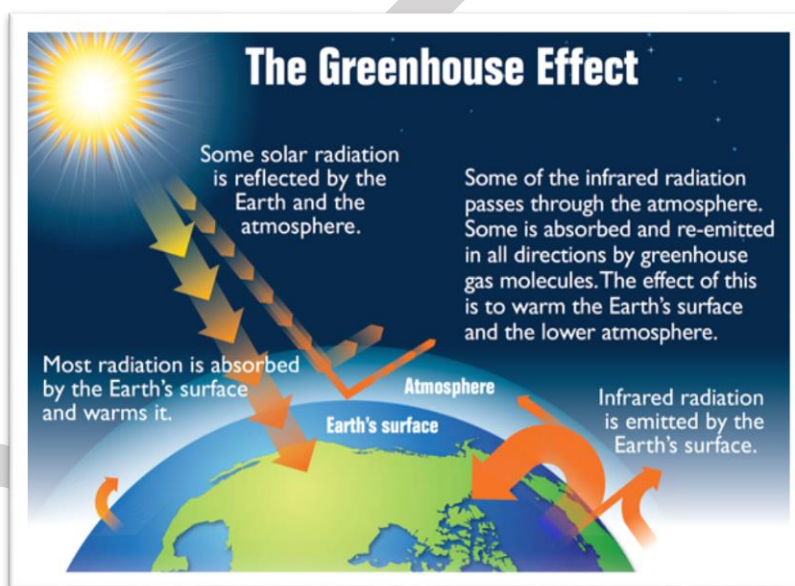


Figure 2 (EPA 2012)

For the first time ever, in April 2019, this country's renewable energy outpaced coal by providing 23 percent of US power generation, compared to coal's 20 percent share. In the first half of 2019, wind and solar together accounted for approximately 50 percent of total US renewable electricity generation, displacing hydroelectric power's dominance.

Declining costs and rising capacity factors of renewable energy sources, along with increased competitiveness of battery storage, drove growth in 2019. In the first half of the year, levelized cost of onshore wind and utility-scale solar declined by 10 percent and 18 percent, respectively, while offshore wind took a 24 percent dip. The greatest decline was in lithium-ion battery storage, which fell 35 percent during the same period.¹ This steady decline of prices for battery storage has begun to add value to renewables, making intermittent wind and solar increasingly competitive with traditional, "dispatchable" energy sources.

The renewable energy sector saw significant demand from most market segments as overall consumer sentiment remained positive. Renewable energy consumption by residential and commercial customers increased 6 percent and 5 percent, respectively, while industrial consumption declined slightly, by 3 percent, through June 2019 compared with the previous year. As in 2018, US corporate renewable

energy contracts once again hit new levels, as corporations signed power purchase agreements (PPAs) for 5.9 gigawatts (GW) of renewable energy in the first half of 2019.

COVID-19 Impacts



Figure 3 (*Unknown source*)

more. Ensuring all employees have the proper resources and training on paperless tools will aid in reaching reduction goals.

With heightened health and safety precautions more City fleet vehicles may be on the road as number of passengers allowed in the same vehicle are limited.

The use of public transit has decreased significantly since the beginning of COVID-19 due to increased teleworking and health safety concerns. The overall impact on GHG emissions is unknown, but will be assessed once the pandemic is over.

Potential Impacts of Climate Change

The Intergovernmental Panel on Climate Change findings confirm that human activities are the primary cause of climate change. Climate impacts can be difficult to observe in part because changes occur slowly over many years.

Globally, scientists expect changing temperatures to result in: disruption of ecosystems; more frequent and damaging storms accompanied by flooding and landslides; increases in the number and severity of heat waves; extended water shortages as a result of reduced snow pack; increased likelihood of wildfires; and disturbance of wildlife habitats and agricultural activities.

Climate Change in the Pacific Northwest

By the 2020s, the average temperatures could be higher than most of those experienced during the 20th Century. Seasonally, the Pacific Northwest will experience warming in summer and winter.

Slight decreases in summer and winter precipitation are anticipated. Changes in summer precipitation are less certain than changes in winter precipitation. Future years projected to continue to swing

COVID-19 has increased teleworking opportunities for employees which has decreased greenhouse gas emissions from commuting. New estimates based on people's movements suggest that global greenhouse gas emissions fell roughly 10 to 30 percent, on average, during April 2020 as people and businesses reduced activity. Highway traffic is down 17 percent in Washington State; Pierce Transit has seen a dramatic reduction in ridership, in some cases depending on the day, as much as 70 percent. Employees have adjusted to using electronic platforms for note taking, document sharing and

between relatively wet and dry conditions, making it likely that the change due to climate change will be difficult to notice.

Sea level will increase globally, but much uncertainty in the specific amount of increase and how it will vary by location. Coupled with sea level rise, there could also be land subsidence.

There has been an observed increase in the variability of average winter (October-March) season precipitation since 1973 for the Pacific Northwest, but no information on changes at smaller time scales (monthly, daily changes). Cause of this change is unknown. Heavy rainstorms are expected to increase globally, whether they do in the Pacific Northwest will be related to where and how the storm track moves in the future – could increase, decrease, or stay the same.

Any changes in wind storms are unknown.

Climate Change Impacts to Washington

The United States Environmental Protection Agency (EPA) published a synopsis of the impacts that climate change could have upon Washington. Over the past century, most of Washington State has warmed one to two degrees (F). Glaciers are retreating, the snowpack is melting earlier in the year, and the flow of meltwater into streams during summer is declining. In the coming decades, coastal waters will become more acidic, streams will be warmer, populations of several fish species will decline, and wildfires may be more common.

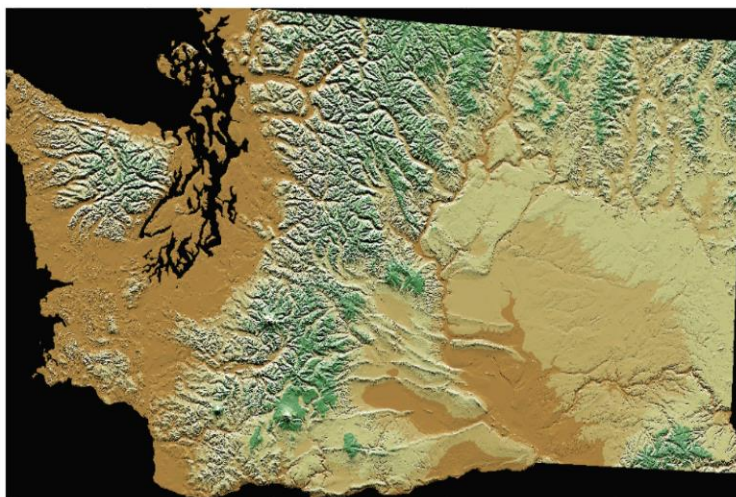


Figure 4 (*Unknown source*)

Sea level rise will threaten coastal development and ecosystems. Erosion will threaten homes and public property along the shore. Increased flooding could threaten wastewater treatment plants, ferry terminals, highways, and railroads along Puget Sound.

Mudflats, marshes, and other tidal wetlands provide habitat for birds and fish. As water levels rise, wetlands may be submerged or squeezed between the rising sea and structures built to protect coastal development.

Three thousand glaciers cover about 170 square miles of mountains in Washington, but that area is decreasing in response to warmer temperatures.

The flows of water in rivers and streams are increasing during late winter and early spring but decreasing during summer. Warmer winters have reduced average snowpack in Washington by 20

percent since 1950. The snowpack is now melting a few weeks earlier than during the 20th century, and, by 2050, it is likely to melt three to four weeks earlier. Decreasing snowpack means there will be less water flowing through streams during summer. Moreover, rising temperatures increase the rate at which water evaporates (or transpires) into the air from soils and plants. More evaporation means that less water will drain from the ground into rivers and streams.

Declining snow and streamflow would harm some economic sectors and aquatic ecosystems. Less snow means a shorter season for skiing and other winter recreation. Water temperatures will rise, which would hurt Chinook and sockeye salmon in the interior Columbia River Basin. The combination of warmer water and lower flows would threaten salmon, steelhead, and trout. Lower flows would also mean less hydroelectric power.

Changing the climate is likely to more than double the area in the Northwest burned by forest fires during an average year by the end of the 21st century. Higher temperatures and a lack of water can also make trees more susceptible to pests and disease, and trees damaged or killed burn more readily than living trees. Changing climate is likely to increase the area of pine forests in the Northwest infested with mountain pine beetles over the next few decades. Pine beetles and wildfires are each likely to decrease timber harvests. Increasing wildfires also threaten homes and pollute the air.

The changing climate will affect Washington's agricultural sector, particularly fruits and vegetables, which often require irrigation. Because streams rather than ground water provide most of Washington's irrigation water, the expected decline in streamflow would reduce the water available for irrigation. About two-thirds of the nation's apples come from Washington, and most are grown east of the Cascade Mountains where the dry climate requires irrigation. The Washington Department of Ecology is concerned that yields of apples and cherries may decline in the Yakima River Basin as water becomes less available. Alfalfa, potato, and wheat farmers also require substantial irrigation.

Climate Change Impacts to Pierce County

Pierce County's climate change impacts mirror many of the impacts associated with Washington State.

Additional expected sea level rise, depending on future global trends in greenhouse gas emissions and glacial melt rates: up to 6 inches by 2030; up to 15 inches by 2050; and up to 57 inches by 2100.

Ocean acidity is projected to increase 38–109 percent by 2100 relative to 2005 levels. Corrosive conditions are particularly of concern to the shellfish industry in Puget Sound, which depends on good water quality to grow oysters, clams and mussels.

Stream temperatures in the Pacific Northwest are projected to increase by 3°F by 2080. Warmer water temperatures will result in more lake closures and could be lethal to salmonids and other aquatic species.



Figure 5 (*Pierce County*)

Current trends indicate that Mount Rainier's glaciers - and others contributing to summertime stream flows and sedimentation in Puget Sound watersheds - will continue to melt as temperatures warm. In all years between 2003 and 2009, there has been a net melting of the Emmons and Nisqually Glaciers between 0.5 and 2.0 meters water equivalent.

Extreme heat events will become more frequent while extreme cold events will become less frequent. Wildfires are expected to become more common as temperatures rise and less rain falls during summer months.

Landslides are expected to become more common in winter and spring due to projected increases in extreme precipitation events and increasing winter precipitation, particularly in areas most prone to present-day landslides.

Flood risk is projected to increase during the fall and winter seasons as warmer temperatures cause more precipitation to fall as rain over a larger portion of the basin. Eight of the top ten peak floods have been recorded since 2006. Less snowmelt will cause the lowest flows to become lower in the summer months.

For rivers originating on Mount Rainier, including the Puyallup, White, Nisqually, and Carbon Rivers, sediment loads are expected to increase, further contributing to flood risk, as declining snowpack and glacial recession expose more unconsolidated soils to rain, flood flows, and disturbance events.

Total annual precipitation in the Pacific Northwest is not projected to change substantially, but heavy rainfall may be more frequent and intense, and summer precipitation may decrease. More rain and less snow will fall in the winter.

Climate Change Impacts to Lakewood

Local impacts are not definitive, but Lakewood could experience:

1. Changes to local and regional weather patterns;
2. Rising Puget Sound water levels which could influence Chambers Creek Dam at high tides and eventually lead to overtopping;
3. Areas with steep slopes, such as Chambers Creek Canyon, with heavy rainfall events, could lead to increased landslides.

4. Increased flood risk in the Clover Creek watershed; rising flood waters could impact I-5 between Highway 512 and Bridgeport Way;
5. Additional pollutant loading from peak storm events and higher summer temperatures are likely to make existing water quality issues in City's numerous lakes and streams worse (expect depleted oxygen levels and more algae bloom events);
6. Potential for fires in Fort Steilacoom Park, the open space areas behind Western State Hospital, JBLM lands adjacent to the city limits, and vacant lands within the I-5 and Highway 512 Corridors.

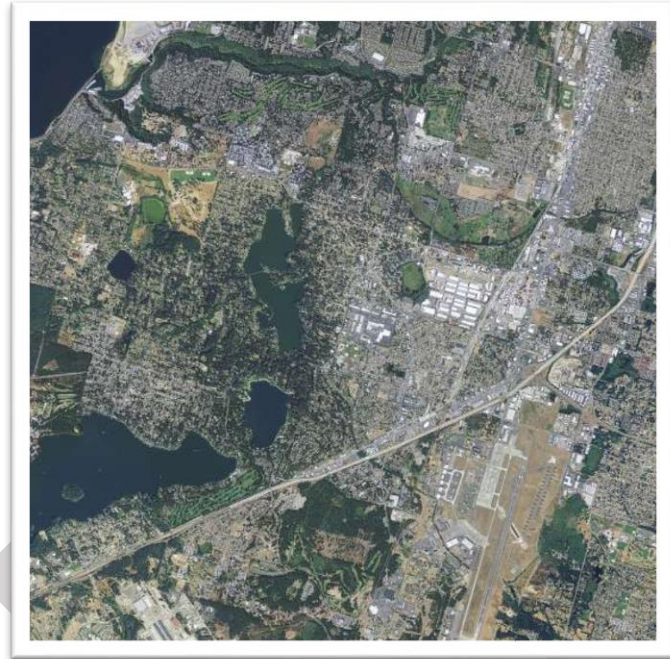


Figure 6 (LANDSAT)

Lakewood Climate Change Advantages and Challenges

Lakewood has advantages and challenges as it prepares for climate change.

Advantages

Climate: Lakewood's moderate climate means lower heating and cooling demands.

Access to hydroelectric power: Two of the three power companies that serve Lakewood receive power from hydroelectric plants.

Infill Potential: A number of underutilized parcels provide opportunities to develop walkable, mixed-use environments to meet resident's needs.

Transportation: Residents have convenient access to transportation alternatives. Pierce Transit provides several bus routes connecting Lakewood to other parts of Pierce County. Sound Transit provides regular bus transportation to Sea-Tac International Airport, in addition to a commuter rail station. Two transit stations and two park-and-rides are located in the city.

Challenges

Lakewood is a relatively new city. Upon incorporation in 1996, Lakewood faced many challenges in providing basic municipal services. Climate change policy was not a priority. However, as the city has matured, it is now beginning to examine climate change and its impacts upon the city and region.

Older housing stock: Even though Lakewood incorporated in 1996, as a community, it has been around for over 100 years. Lakewood is primarily a suburb of Tacoma. Much of the housing stock is older and likely needs substantial upgrades to improve energy conservation.

Location: Employment centers are primarily found in Tacoma, and the Seattle-Metro area. Twenty-one percent commute to Tacoma, and 19 percent to the Seattle-Metro area. About 79 percent use single occupant vehicles, 10 percent carpool, and five percent use public transit.

Recently revised land use regulations:

Lakewood has adopted a Downtown Subarea Plan. A second subarea plan is under preparation for the Lakewood Station District.

Adopted non-motorized transportation plan:

The plan provides a comprehensive plan to enhance the Lakewood urban area pedestrian and bicycle systems. This effort was initiated by the City to address long range transportation goals and policies. Originally adopted in 2009, the plan should be updated to better reflect many land policy changes that have occurred in the past 10-years.

Adopted complete streets policy: Adopted in 2016 the City adopted an ordinance recognizing that transit, bicycling, and walking as fundamental modes of transportation of equal importance to that of passenger vehicles. This led to the City reconstructing Motor Avenue SW into a complete street.

Promoting energy conservation: City has already installed LED lighting for all street lights (2,372) and all traffic signals (69).

Open space protections: City has taken action to protect and preserve open spaces both on private and public properties. A review of the National Land Coverage Database, between 2001 and 2016, shows no net loss in open space. City has also been active in expanding parks.

Tree preservation: Since 2001, the city has had in place a tree preservation ordinance. The city is also proactive in regards to removal of trees without permits; over the years, the city has substantially fined property owners. Fines that are collected to into a tree preservation fund.

Average commute distance is 26.4 miles. Commute trips are significant factors that increase CO2 production.

Lack of a street network: A very limited grid street network is found in the City's older neighborhoods, namely Tillicum, and Lakeview.

Lack of street infrastructure: Even though it is an urban community, much of Lakewood lacks curbs gutters, and sidewalks. While the city has taken steps to improve the situation, current conditions make it difficult to promote walkability when many of the basic services are non-existent.

Underlying land use patterns: Current land use patterns were established by Pierce County. The county's zoning followed very basic principles. It did not offer much protection from incompatible uses. The county zoning promoted strip commercial development and auto-dependent uses.

Transportation: The community lacks a bus rapid transit system. Sound Transit commuter service is limited.

Lakewood is not a full-service city. Water is provided by the Lakewood Water District. Sewer is provided by Pierce County Utilities. Waste collection is provided under contract with Waste Management Services. Power is provided by three different power purveyors, Puget Sound Energy, Tacoma Power, and Lakeview Light and Power, a mutual non-profit company.

Floodplain protections: Updated the City's floodplain regulations creating an overlay zone and new development standards.

Shoreline Master Program (SMP): SMP regulations restrict development in areas buffering water bodies, streams, or wetlands.

Energy Generation and Use

Most fuels used in transportation are from nonrenewable resources. In the Puget Sound, buildings are most often heated by natural gas and electricity, and illuminated by electricity produced by a fuel mix that includes natural gas, nuclear energy, hydroelectric power and renewable energy sources. There are three primary suppliers of energy in Lakewood: Lakeview Light and Power, a member-owned mutual cooperative; Puget Sound Energy, an investor-owned utility; and Tacoma Power, a public utility. Figure 7 shows the boundaries of each of the utility providers within Lakewood.

Table 1 provides information on the utility fuel mix on each of the three utilities. Lakeview Light and Power and Tacoma Power provide around 85 percent of their power from hydroelectric sources. Puget Sound Energy uses a different fuel mix including coal, 31 percent; hydroelectric power, 22 percent; natural gas, 17 percent; and unspecified sources at 20 percent. The burning or combustion of coal creates gases that are released into the atmosphere. Of these gases, carbon dioxide (CO₂) is the most common and is the gas most responsible for exacerbating the greenhouse effect.

In 2019, the Washington Legislature and governor adopted the Washington Clean Energy Transformation Act, requiring the state's electric utilities to fully transition to clean, renewable power by 2045.

Washington's investor-owned utilities, namely Puget Sound Energy, must develop and implement plans to reduce carbon emissions or pay penalties for failing to meet requirements. The Washington State Utilities and Transportation Commission is in the process of developing programs and rules to review companies' plans and ensure compliance with legislative requirements. To-date, Washington electric companies have surpassed conservation and renewable energy requirements although the impact of COVID-19 may have slowed efforts in 2020 and could impact 2021.

Table 1 Utility Fuel Mix – 2018						
	Lakeview Light & Power		Puget Sound Energy		Tacoma Power	
Fuel	Percent	Total MWH	Percent	Total MWH	Percent	Total MWH
Biogas	0	0	0.14	31,708	0	0
Biomass	0	0	0.05	10,143	1.67	81,157
Coal	0	0	31.18	6,932,757	0	0
Geothermal	0	0	0.02	3,540	0	0
Hydro	86.47	228,245	22.29	4,956,252	84.98	4,128,190
Natural Gas	0.01	18	17.24	3,832,936	0	0
Nuclear	10.75	28,385	0.36	80,933	6.12	297,299

Table 1 Utility Fuel Mix – 2018						
Fuel	Lakeview Light & Power		Puget Sound Energy		Tacoma Power	
	Percent	Total MWH	Percent	Total MWH	Percent	Total MWH
Other biogenic	0		0	0	0	0
Other non-biogenic	0		0	0	0	0
Petroleum	0		0.06	13,107	0	0
Solar	0		0.67	149,638	0.01	358
Waste	0		0	0	0	0
Wind	0	0	8.41	1,869,790	5.64	273,722
Unspecified	2.77	7,325	19.58	4,352,868	1.58	76,722
Totals		263,973		22,233,672		4,857,737

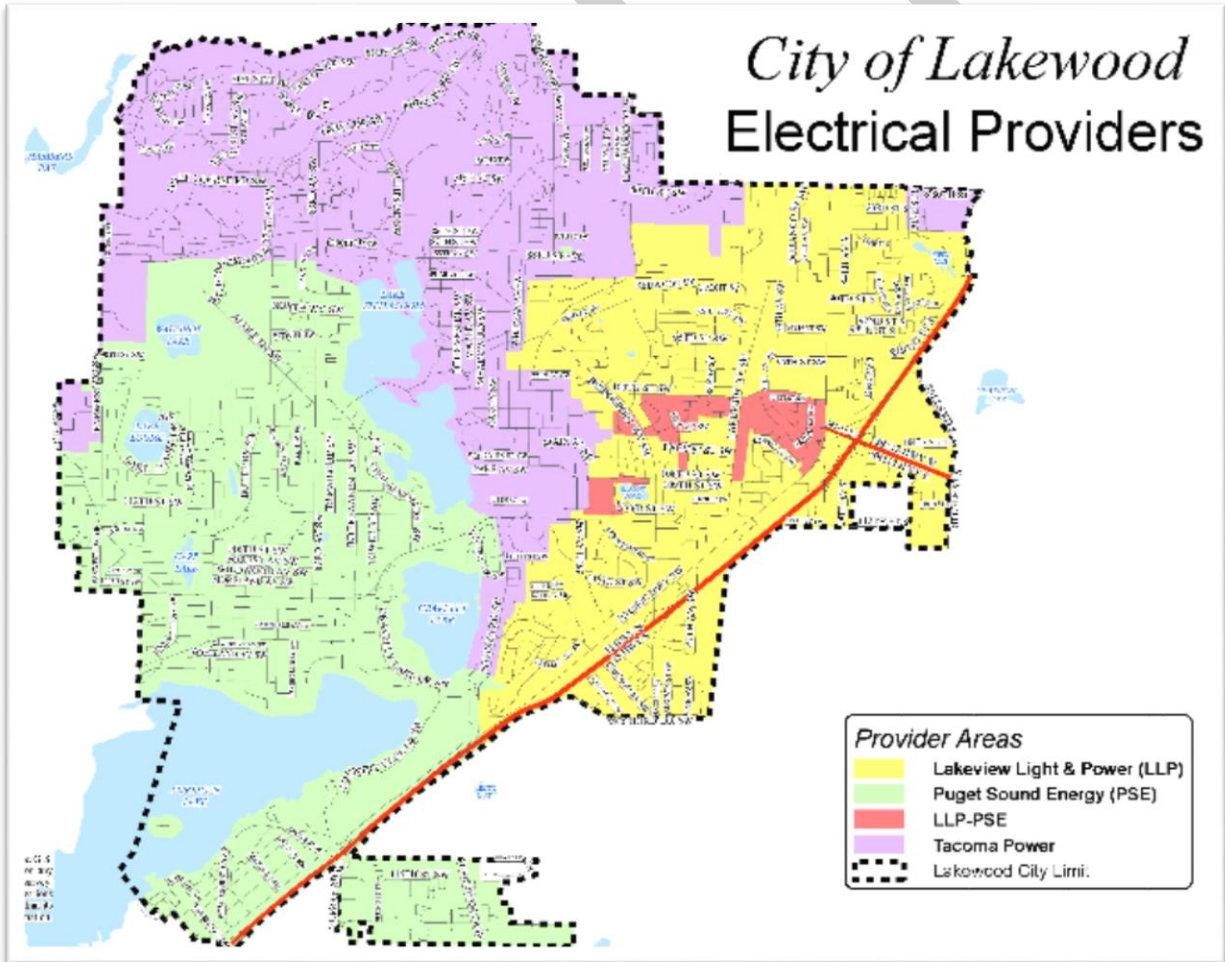


Figure 7 (City of Lakewood)

Citywide Emissions

Using information derived from the Puget Sound Clean Air agency Greenhouse Gas Emission Inventory published in 2015, Lakewood's industries, businesses and residents generated **about 450,000 MGCO₂e**.

- The transportation greenhouse component was the largest source of community emissions (37%), followed by industrial users (23%), and residential users (20%).
- Greenhouse gas emissions from Lakewood residences account for a substantial percentage of the City's total emissions. In 2015, Lakewood residents produced about 92,000 MgCO₂e, primarily from the use of natural gas, and PSE electricity generated from coal-fired plants.
- Combined, commercial/industrial sector GHG emissions are equal to that of transportation.
- Transportation is the largest single source of greenhouse gas emissions in Lakewood. A good portion of the emissions can be attributed to trips generated on Interstate 5 and State Highway 512 which pass through Lakewood. Lakewood is also a bedroom community. Prior to COVID, around 16,400 persons commuted away from Lakewood during the work day. Commuting patterns show that 79% use single occupant vehicles, 10% carpool, and 5% use public transit.

Table 2 Lakewood GHG Emissions in 2015		
Emission-Type	City of Lakewood 2015 Emissions (MgCO₂e)	Percent of Total
On-Road Vehicles	164,637	37%
Industrial Built Environment	104,908	23%
Commercial Built Environment	64,816	14%
Residential Built Environment	91,614	20%
Solid Waste	15,290	3%
Wastewater	3,140	<1%
Freight & Passenger Rail	3,301	<1%
Off-Road Vehicles & other Mobile Equipment	488	<1%
Other	593	<1%
Total	448,787	

What is a metric ton of CO₂e? 1 metric ton = 1,000 kilograms = 2,205 pounds. For Lakewood, 448,787 MgCO₂e equals 989,575,335 pounds of carbon dioxide equivalent annually. The EPA estimates that 1 metric ton of CO₂e is produced by driving from San Francisco to Atlanta in an average car. Put another way, a commuter driving from Lakewood to Seattle and returning back to Lakewood (79.8 miles round trip), over a one month period, would generate about 1 metric ton of CO₂e.

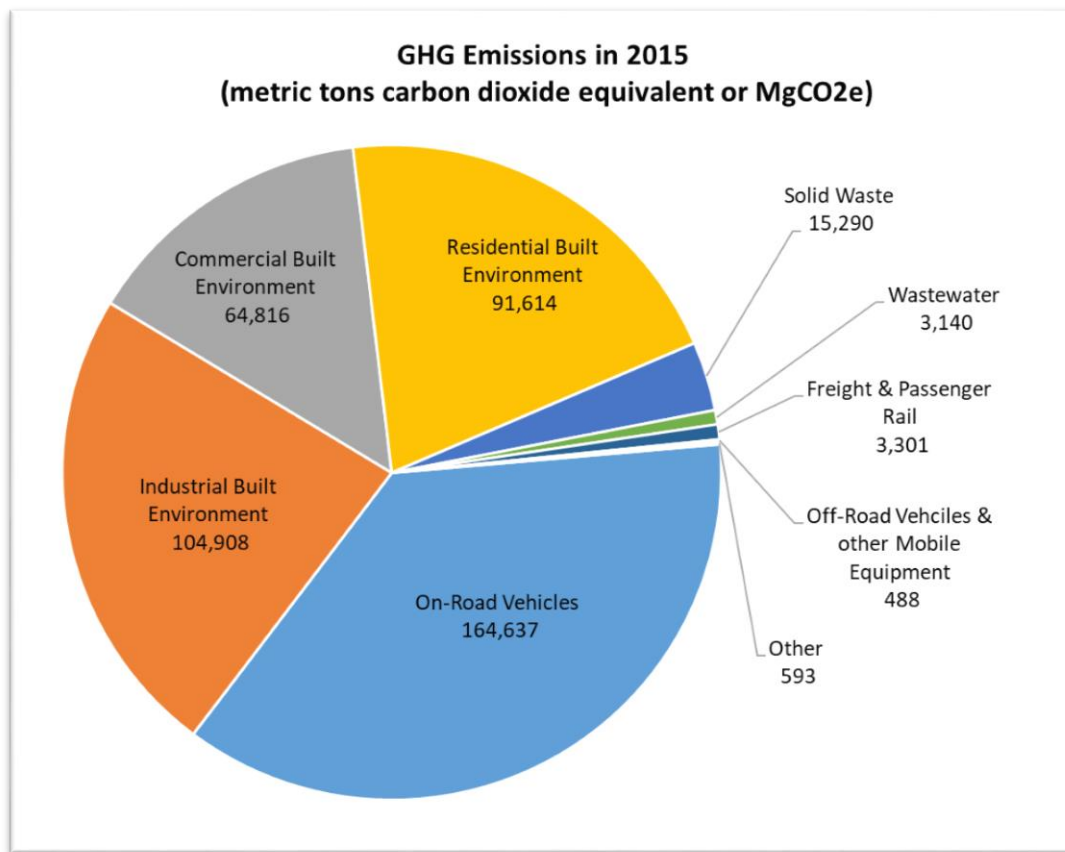


Figure 8 (*City of Lakewood*)

Projected GHG Emissions and Reductions

Based on current data, which is limited, it is difficult to determine projected GHG emissions for Lakewood. Data suggest that Lakewood increases its GHG emissions by 2,600 MgCO₂e annually or about ½ percent of the total. By itself, it is not a significant amount, but over time, it begins to add up. Lakewood numbers in many ways mirrors Washington State's overall GHG emissions. From 1990 to 2017 the state's GHG emissions remained relatively flat even with substantial increases in population.

In 2020, the state amended its current RCWs establishing new limits for GHG reductions. This amendment was in response to a report prepared by the Washington Department of Ecology in 2019 which had proposed new emission reduction limits. Under RCW 70A.45.020, the revised reduction schedule now has more restrictive standards:

Washington State – current	Reduce GHG emissions to 1990 levels by 2020
	Reduce GHG emissions by 45% below 1990 by 2030
	Reduce GHG emissions by 70% below 1990 by 2040
	Reduce GHG emissions by 95% below 1990 (net zero) by 2050

In 1990, Lakewood's estimated GHG was 384,860 MgCO₂e. Using RCW 70A.45.020, Lakewood's projected CHG targets are as follows:

45% below 1990 by 2030:	211,673 MgCO ₂
70% below 1990 by 2040:	115,458 MgCO ₂
95% below 1990 by 2050:	19,243 MgCO ₂

What does this mean? These target numbers are very aggressive. Lakewood's ability to meet these numbers is unlikely given that the City is not full-service. Almost all of the utilities that serve Lakewood are provided by outside purveyors where the City has limited authority to affect changes in energy and waste management. In Lakewood's situation, the means to reduce GHG emissions is through cooperative agreements with utility providers, tightened sustainability regulations, promoting intermodal and public transportation, community education and outreach, the introduction of electric vehicles and hybrids into the City's fleet system, energy conservation, and efforts to enhance carbon sinking.

Other ways to reduce GHG emissions is through the conversion of PSE electric power to renewable energy resources, a dramatic reduction in vehicle miles driven (VMT), and the conversion of internal combustion vehicles to electric vehicles – all three of these proposals are beyond Lakewood's legislative authority.

Carbon Sequestration

Locally forested areas found in the City's designated open space areas, lawns/fields and wetlands remove carbon emissions from the atmosphere through the process of photosynthesis and store them back into the earth. This process is referred to as carbon sequestration or carbon sinking. The work these natural resources do to support an ecological balance have been largely ignored. Lakewood's inventory estimates of the amount of carbon removed from the atmosphere are unknown as of this writing. Wetlands in particular, and specifically the Flett Creek Complex can store a significant amount of carbon.

Today, all of the City's forested areas and freshwater inland wetlands are currently protected or conserved through the City's open space policies, the shoreline master program, and development regulations, including a tree preservation ordinance.

Lakewood examined the change in land cover over time by comparing the 2001 and 2016 National Land Cover Database (NLCD) land cover types (Figures 9, 10, and 11). The City experienced an increase in urbanization of infill areas. Examples include the development of a vacant lot for Walmart, commercial development along major corridors, the initial stages of industrial development in the Woodbrook Industrial park, new infill short plat subdivisions scattered throughout residentially zoned areas, and new housing development adjacent to the lakes. Of interest - outside Lakewood – significant changes took place with the development of the Chambers Creek Golf Course and the expansion of Joint Base Lewis McChord (JBLM).

A significant unknown is the impact of climate change on lakes. Inland waters play a key role in carbon sequestration, with both positive and negative effects. Half of the carbon that lakes receive is respired

and returned to the atmosphere as CO₂. On the other hand, some carbon gets buried in freshwater sediments. The scientific community lacks adequate data and proper models to evaluate how global warming will affect the ways that freshwater interacts with the land, atmosphere, and oceans. However, one topic is certain, lakes are warming at an alarming rate, outpacing oceans and the atmosphere. And Lakewood's lakes are fairly shallow, exacerbating the situation. Table 3 below lists Lakewood's primary water bodies. Average and maximum depths information have been provided.

Name of lake	Surface area (acres)	Average depth (feet)	Maximum depth (feet)	Primary inflow	Primary outflow
Gravelly Lake	160	38	57	Groundwater	Seepage
American Lake	1,091.3	53	90	Groundwater; Murray Creek	Sequalitchew Creek
Lake Steilacoom (reservoir)	306	11	20	Ponce de Leon Creek (springs); Clover Creek	Chambers Creek
Waughop Lake	33	7	Unknown	Groundwater	None
Lake Louise	38	17	35	Groundwater	None
Seeley Lake (wetland)	46	Unknown	Unknown	Groundwater & stormwater	None
Ward's Lake (Owens Marsh)	11	30	65	Storm water catch basin for southeast Tacoma	Tacoma gravel holding basin (84 th Street SW)/ flows into Flett Creek

As lake begins to warm, dissolved oxygen supply is depleted, and significant changes occur in the lake. Fish species that require cold water and high dissolved oxygen levels are not able to survive. With no dissolved oxygen in the water the chemistry of the bottom sediments are changed resulting in the release of the plant nutrient phosphorus into the water from the sediments. As a result the phosphorus concentrations in lakes can reach extremely high levels. During major summer storms or at fall overturn, this phosphorus can be mixed into the surface waters to produce nuisance algae blooms.

The loss of land uses like forest, wetland, or fields would be a source of significant new emissions that make the path to local carbon neutrality more difficult to achieve. Placing a value on ecosystem services introduces a powerful new tool for the Lakewood community to protect its natural resources, lay the groundwork for a future local carbon offset program, and reveals the vital caretaking role that local elected officials can play in increasing natural carbon sequestration and storage.

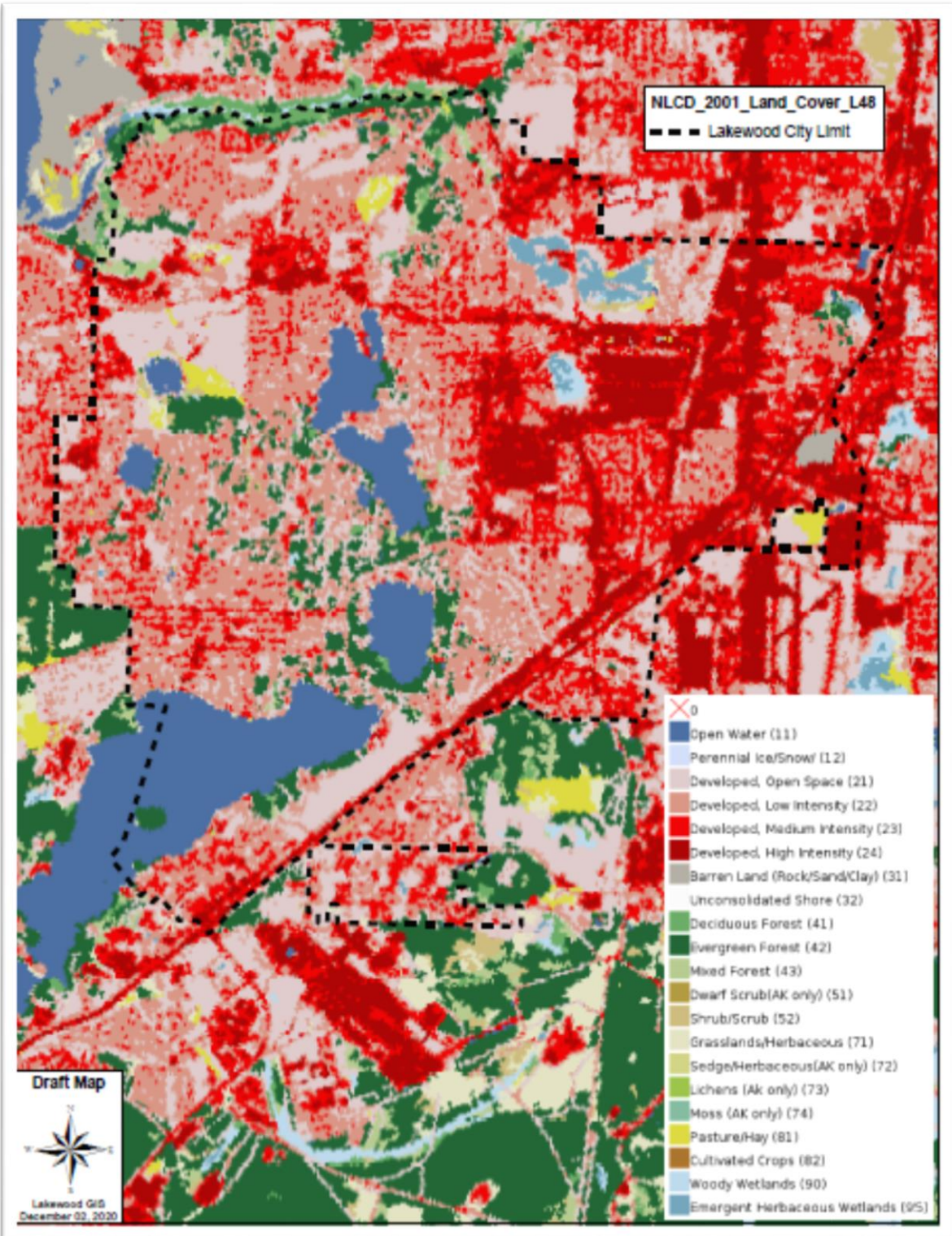


Figure 9
 Lakewood Land Coverage, 2001

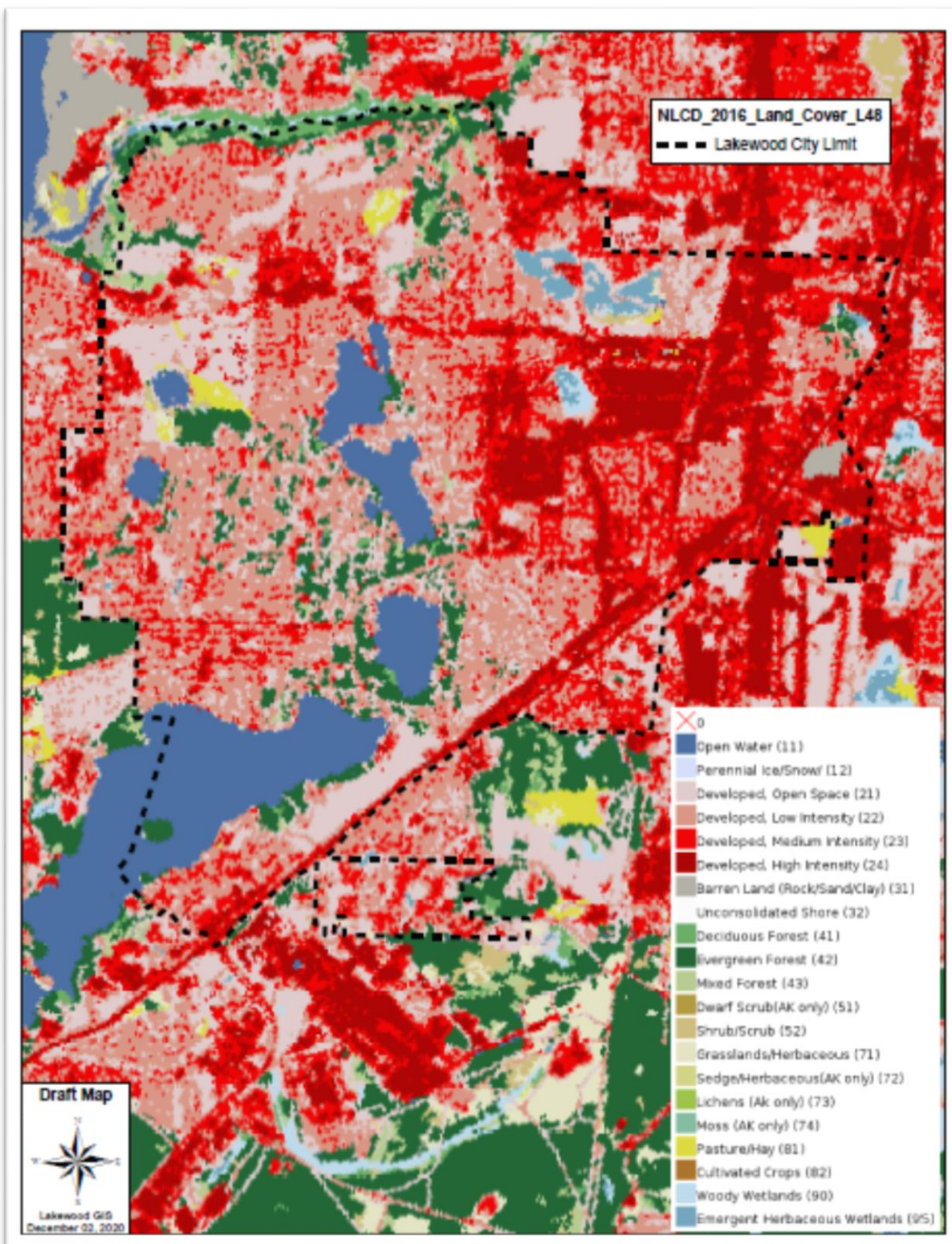


Figure 10
 Lakewood Land Coverage, 2016

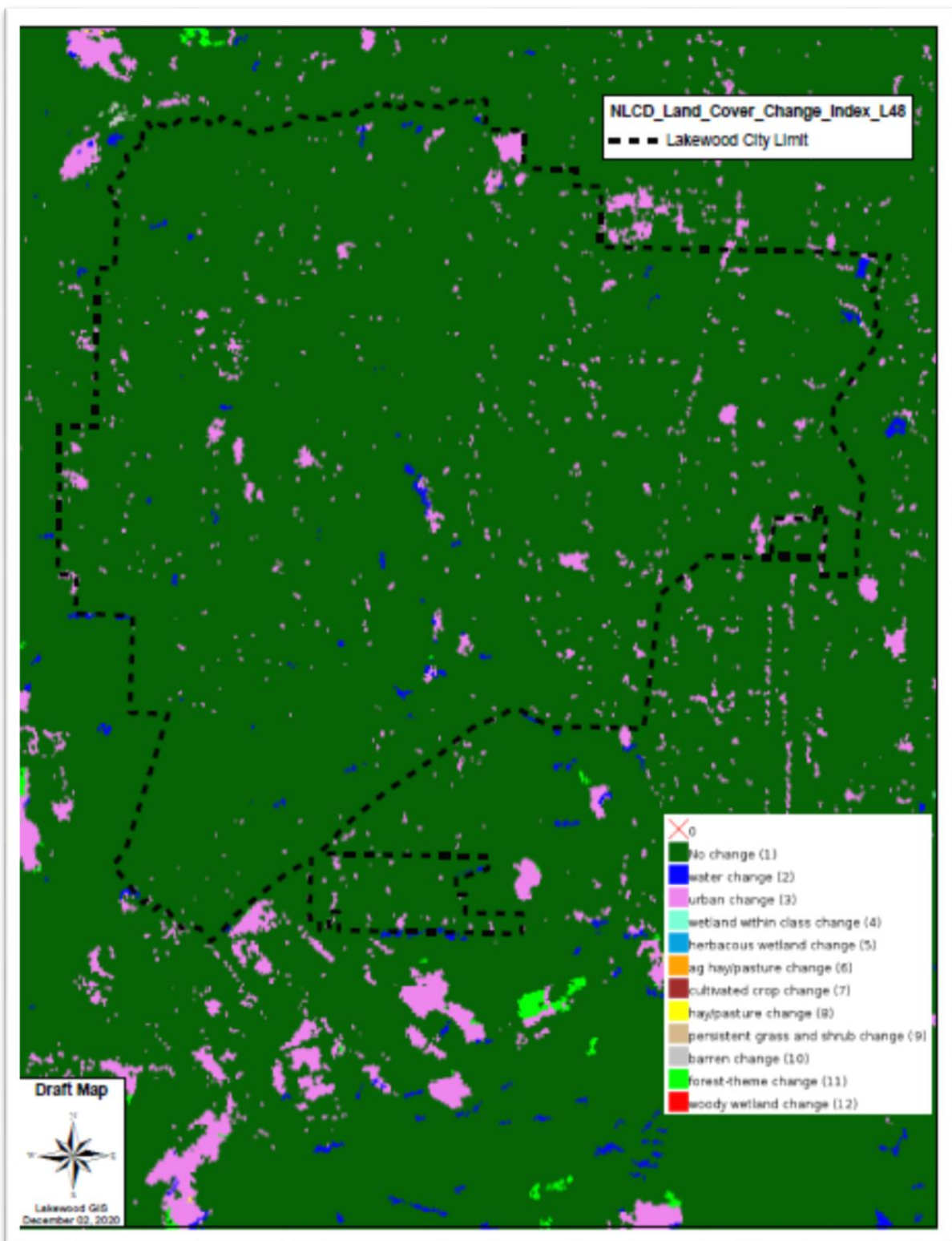


Figure 11
 Net Changes in Land Coverage
 (Green denotes no change; pink shows urban change)

Key Findings and Recommendations

Reducing greenhouse gas emissions, sustaining healthy ecological systems and adapting to climate disruption are fundamental challenges facing communities around the world. An adequate and timely response to climate change will require collective action and sustained effort from public and private sectors. Local and regional initiatives should be coordinated to protect environmental and human health.

If residents, businesses and City officials are committed to environmental responsibility in planning for Lakewood's future, the City can assume a leadership role in responding and adjusting to the potential impacts of climate change. Greenhouse gas emissions in the City are primarily generated by motor vehicles and largescale commercial and industrial operations. The City is also traversed by Interstate 5 and State Highway 512; both freeways experience substantial congestion during peak commute hours. Therefore, reduction measures must involve residents, local businesses and neighboring jurisdictions.

Lakewood has some favorable characteristics that provide substantial advantages in addressing energy and climate change. These advantages include a moderate climate, vacant and underutilized lands, the Downtown and the Lakewood Station District Subarea Plans, and recent revised development codes that help moderate future emissions by facilitating convenient access to employment, transportation and essential human services.

Finding 1: Lakewood can provide leadership and engagement.

The City will seek opportunities to develop cross jurisdictional solutions based upon state and federal emission reduction targets. Lakewood can play an active role in these efforts by:

- Collaborating and partnering with relevant agencies and organizations to advocate for substantive action on climate change; and
- Raising awareness among Lakewood residents and businesses about key climate change challenges and solutions.

Finding 2: Lakewood can actively regulate land uses to reduce greenhouse gas emissions.

There is a close link between levels of energy consumption and land development patterns. Land use policies that encourage goods and services to be located within convenient walking distance of residential neighborhoods can decrease reliance on private automobiles. This in turn has the positive benefit of decreased daily energy use. Sustainable development patterns require:

- Promoting mixed-use and infill development in the Downtown and other major activity centers, along key commercial corridors and on vacant and underutilized parcels;
- Promoting walkability in neighborhoods by improving streetscape design and locating housing close to local-serving uses and public spaces;
- Prioritizing the use of green and sustainable development standards and practices in planning, design, construction and renovation of buildings and infrastructure;
- Promoting the integration of neighborhood commercial uses in residential areas; and
- Supporting urban agriculture and making locally grown food accessible to all residents.

Finding 3: Lakewood can improve upon its active modes of travel.

Private automobiles remain the primary mode of travel in the City. Public transit, pedestrian and bicycle facilities can be improved to ensure that transit and active modes of travel become more viable options. Climate-friendly vehicles can also make a significant contribution to emissions reduction. The City can promote climate friendly and efficient circulation options by:

- Working with Pierce Transit and Sound Transit, expand public transit service to improve mobility and reduce reliance on the private automobile;
- Promoting walking and bicycling as a safe and convenient mode of transportation;
- Supporting safe routes to schools and improving bicycle, pedestrian and transit access;
- Encouraging efficient and clean regional and long-distance passenger rail service and public transit connections to stations; and
- Reducing reliance on private automobiles as a primary mode of transportation to decrease emissions from vehicle trips.

Finding 4: Restoring and protecting the natural environment will help to mitigate impacts of climate change.

Climate change may have impacts on human and environmental health. A healthy natural environment will help enable the community to respond to future climate change-related events. Lakewood can address these challenges by:

- Restoring and expanding ecological systems to support the natural functions of soil, water, tree canopies, creeks, open space and other natural resources; and
- Conserving and protecting wetlands, uplands and natural resources.

Finding 5: Preparing for potential climate change is as critical as reducing greenhouse gas impacts and planning for long-term sustainability.

Communities must reduce greenhouse gas emissions to reduce or even reverse the impacts of climate change. Communities must also prepare for potential impacts to human and environmental health in the short and medium term. Action at the local level to adapt to future impacts will require adequate planning for changing weather patterns.

ENERGY AND CLIMATE CHANGE GOALS

GOAL EC 1	Leadership in Managing Climate Change Take steps to address climate change and to manage its effects. This goal entails not only pursuing new programs and strategies, but informing residents and businesses about these actions and actively monitoring results to ensure progress in critical areas. Partner with other jurisdictions and organizations to develop effective regional solutions and regulation at regional, state and federal levels. Collaborate with residents, businesses, public agencies and neighboring jurisdictions, in order to meet or exceed state requirements for reductions in greenhouse gas emissions.
GOAL EC 2	Clean and Efficient Transportation Options Expand the City's transportation network by encouraging the use of climate-friendly technology, planning growth around multiple modes of travel and reducing automobile

	reliance. In addition to promoting improved public transit, partner with private developers to undertake citywide improvements that make active modes of travel, such as walking and bicycling, more comfortable and preferable options.
GOAL EC 3	Sustainable and Efficient Energy Systems Reduce the City's consumption of energy by encouraging energy conservation, and supporting the consumption of energy produced by climate-friendly technologies. Reduce the City's overall waste stream by reducing the City's consumption of goods and materials.
GOAL EC 4	Sustainable Development Reduce energy consumption by promoting sustainable land uses and development patterns. Pursue infill development opportunities and encourage the construction of higher-density, mixed-use projects around existing public transit infrastructure, schools, parks, neighborhood-serving retail and other critical services. Incorporate ecologically sustainable practices and materials into new development, building retrofits and streetscape improvements.
GOAL EC 5	Hazards Management (developing a climate-resilient community) While the impacts of climate change on local communities are uncertain, to the extent possible, prepare to respond to and protect residents and businesses from increased risks of natural disasters. Resilience involves three abilities which are related to hazards management: 1) the ability to absorb strain and preserve functioning despite the presence of adversity; 2) an ability to recover or bounce back from untoward events – as the community becomes better able to absorb a surprise and stretch rather than collapse; and 3) an ability to learn and grow from previous episodes of resilient action.

Policies and Implementing Actions

A range of policies are outlined below in relation to each of the goals. These policies mandate, encourage or allow certain actions to be pursued throughout the duration of the Comprehensive Plan. Together, they serve as strategic directions for the City and partners.

GOAL EC 1

GOAL EC 1: Leadership in Managing Climate Change

Policies

EC 1.1 Leadership and Advocacy

Advocate for local, regional and national solutions to climate change at all levels of government and with the private sector. The success of climate change initiatives depends on collaborative approaches. Lakewood will work to forge new partnerships, develop innovative solutions and continue to support and promote regional, national and international efforts that support climate change protection and sustainability.

EC 1.2 Public Awareness and Support

Provide incentives to encourage residents and businesses to reduce their carbon footprint by raising their awareness about the impacts of climate change and by building support for climate change initiatives in Lakewood and the greater region.

GOAL EC 2: Clean and Efficient Transportation Options

Policies

EC 2.1 Climate-Friendly Vehicles and Equipment

Encourage the use of available climate-friendlier vehicles and equipment to reduce energy use and carbon emissions and support the use of low-emission or renewable fuel vehicles by residents and businesses, public agencies and City government.

EC 2.2 Expanded and Affordable Public Transit

Coordinate with regional transportation agencies and support enhanced and expanded public transit to improve mobility options for residents and visitors. Public transit provides an environmentally-friendly, cost-effective and equitable mode of travel for residents and visitors. Encouraging transit-supportive development patterns can further maximize the efficiency of these systems and help reduce air pollution and greenhouse gas emissions within Lakewood.

- Public transit service should connect major destinations in Lakewood including education institutions, community facilities, regional open space areas and major commercial corridors to serve a greater number of riders and reduce commuter vehicle miles.
- All housing units and employment centers in Lakewood should have access to a local and regional public transit stop.
- Ensure that all transit stations and routes to and from these stations are safe.
- Support efforts to expand service and to make transit affordable and accessible to people of all abilities seniors, youth and low-income households.

EC2.3 Safe and Convenient Walking and Bicycling

Promote walking and bicycling as a safe and convenient mode of transportation.

- Improve pedestrian and bicycle amenities to serve the recreation and travel needs of residents and visitors in all parts of Lakewood.
- Where feasible, the City will: connect major destinations such as parks, open spaces, civic facilities, employment centers, retail and recreation areas with pedestrian and bicycle infrastructure; promote shared roadways in residential streets; require new development and redevelopment projects to provide pedestrian and bicycle amenities, streetscape improvements and linkages to planned and completed City and regional multi-use trails; and develop safe routes to schools and out-of-school programs that allow access by bicycle and pedestrian paths or reliable and safe transit.

- Explore innovative solutions such as bicycle-sharing programs and encourage businesses, schools and residential developments to provide secure bicycle parking to ensure that these ecologically-friendly, low-impact transportation modes are available to all community members, thereby reducing emissions from vehicles within the City, improving environmental quality and enhancing mobility and connectivity.

EC 2.4 Regional Passenger Rail

Work with Sound Transit to expand commuter rail service and existing parking facilities.

EC 2.5 Private Automobile Use

Work toward creation of an urban landscape that will reduce reliance on private automobiles through land use planning and by providing amenities and infrastructure that encourage safe and convenient use of public transit, walking and bicycling.

GOAL EC 3: Sustainable and Efficient Energy Systems

Policies

EC 3.1 Renewable Energy

Promote the generation, transmission and use of a range of renewable energy sources such as solar, wind power and waste energy to meet current and future demand.

EC 3.2 Energy Efficiency and Conservation

Promote efficient use of energy and conservation of available resources in the design, construction, maintenance and operation of public and private facilities, infrastructure and equipment.

Collaborate with partner agencies, utilities and businesses to support a range of energy efficiency, conservation and waste reduction measures including: development and retrofitting of green buildings and infrastructure; installation of energy-efficient appliances and equipment in homes and offices; and heightened awareness of energy and conservation issues.

Collaborate with local workforce development programs to train and employ Lakewood residents in these other green jobs sectors.

EC 3.3 Solid Waste Reduction and Recycling

Promote waste reduction and recycling to minimize materials that are processed in landfills.

- Encourage residents and businesses to reduce waste and minimize consumption of goods that require higher energy use for shipping and packaging.
- Encourage composting to reduce food and yard waste and provide mulch for gardening.
- Develop a comprehensive recycling and composting program for all city-owned facilities.

EC 3.4 Water Conservation and Reuse

Promote water conservation and recycled water use. Reduce energy consumed for treatment and transportation of water and discharge of wastewater by: encouraging installation of low-flow fixtures; using native planting for landscaping in all City-owned and operated facilities; promoting best practices and technologies for water conservation; considering water use in evaluating and approving development projects; supporting the use of graywater and water catchment systems in residential, commercial and industrial uses.

EC 3.5 City Government Operations

Promote climate-friendly standards, practices, technologies and products in all City facilities and operations. Lead by example to reduce greenhouse gas emissions by incorporating best practices and available technologies. Create favorable conditions for community-wide implementation of climate-friendly practices by supporting innovations and creative solutions.

GOAL EC4: Sustainable Development

Policies

EC 4.1 Mixed-Use and Infill Development

Promote mixed-use infill development on vacant and underutilized parcels along commercial corridors, in the Downtown area, and in the Lakewood Station District. Support local-serving mixed-use in residential areas to provide needed services and amenities close to where people live and work. Protect existing affordable housing. Require property owners to comply with and pay for state and federal requirements for site remediation as a condition for approving development on contaminated sites.

EC 4.2 Compact Walkable Neighborhoods and Livable Streets

Promote safe and walkable neighborhoods and inter-connected streets through the design of streetscapes, public gathering places and all types of physical development. Provide pedestrian amenities such as sidewalks and street trees, transit and bike improvements, lighting and landscaping and appropriate traffic calming measures to ensure a safe pedestrian environment.

Support uses and public space improvements that generate street-level activity, create eyes-on-the-street, provide opportunities for community interaction and encourage a sense of collective ownership of common areas. Encourage mixed-use development that attracts people and facilitates activity throughout the day. Maintain public streets to ensure that neighborhoods and streets are safe and well used.

EC 4.3 Green Buildings and Landscaping

Encourage the use of green and sustainable development standards and practices in planning, design, construction and renovation of facilities; promote the use of green streets

that incorporate extensive landscaping, pervious surfaces and native planting; encourage new development and redevelopment projects to be LEED-certified green buildings; and promote ecologically-sensitive approaches to landscaping. (Adopting green standards and practices will improve the quality of the built environment, reduce environmental impacts and support economic development goals for creating a green economy.)

EC 4.4 Green Infrastructure

Develop green infrastructure standards that relies on natural processes for stormwater drainage, groundwater recharge and flood management. (Green approaches for infrastructure development are environmentally and fiscally efficient and provide long-term benefits to the community by reducing energy consumption and maintenance and capital improvement costs.)

EC 4.5 Local Food System (Urban Agriculture)

Collaborate with local urban agriculture advocates to identify sites with urban agriculture potential.

- Support local agriculture on vacant land identified for urban agriculture development. (Production and processing of food locally can reduce overall energy consumption, improve access to fresh fruits and vegetables in the community, especially in existing food deserts, and support the local economy by keeping jobs and revenue in Lakewood.)
- Support farmers' markets, fresh food stands and community gardens to supplement the availability of healthy food in the City.

**GOAL EC 5
Hazards Management**

EC 5.1 Avoid

When considering climate change impacts, first seek to avoid impacts altogether, then minimize them, and finally, adapt to the unavoidable impacts as much as possible.

EC 5.2 Identify

Improve the ability to identify areas prone to greater risk from climate change hazards and restrict development and redevelopment in those areas. Increase support for mapping and data collection of high risk areas.

EC 5.3 Align

Align land use, hazard mitigation, transportation, capital improvement, economic development, and other relevant plans. All of the community's plans, land use, hazard mitigation, transportation, capital improvement, economic development, and other relevant plans, should be working toward the same goals, and their performance measures, indicators, and policy recommendations aligned.

EC 5.4 Plan

Develop a comprehensive approach to hazards management planning to include possible climate change scenarios, and includes both pre-incident and post-incident responses.

- Develop post-disaster redevelopment plans.
- Expand federal and state support for climate-related hazards management.
- Continue to coordinate and cooperate with the hazards management community.

EC 5.5 Building & Energy Codes Adoption & Enforcement

As required by Washington State, update building and life safety codes to better address the variety of hazards that are likely to result from climate change.

EC 5-6 Maintain Basic Services

Develop strategies to maintain energy, water, and food security for possible climate related disasters, including coordination with appropriate state emergency management agencies.

Implementation Strategies

The following tables list specific implementation strategies for the energy and climate change chapter of Lakewood's Comprehensive Plan. The actions included within these tables are tied to the goals and policies tasks listed in the previous section and go on to set priorities and timeframes. They are intended to provide guidance to decision makers as they seek to implement the recommended actions.

Implementation of near-term actions will be sought in the next five years. Long-term actions may be implemented over the next 20 years. Actions that have both near-term and long-term components are best implemented as an ongoing activity over the next 20 years or may have multiple steps that require action at different times.

All of these strategies in this document are important, and it is difficult to rank them in priority. The priorities are not intended to provide a "hard" schedule but rather a sense of the relative importance among the strategies listed. It is the expectation that the public review and adoption process will be used to vet and refine these priorities.

Table 4			
Acronyms Used In Implementation			
CA	City administration (may refer to any city department, as applicable)	PC	Planning Commission
CC	City Council	PSE	Puget Sound Energy
CM	City Manager	PT	Pierce Transit
CCOMM	City Communications	PWE	Public Works & Engineering
COMM	Community	PCU	Pierce County Utilities
CPSD	Clover Park School District	TP	Tacoma Power
CPTC	Clover Park Technical College	WC	Waste Connections
FIRE	West Pierce Fire & Rescue	WDOT	Washington Dept. of Transportation

LPD	Lakewood Police Department	WDOTR	Washington Dept. of Transportation, Rail Division
LKVW	Lakeview Light & Power		
LWD	Lakewood Water District		

Table 5

**GOAL EC 1 Leadership in Managing Climate Change
TASKS**

No.	What	Who	When	Recommended Priority
EC 1(A)	Develop a greenhouse gas reduction plan for reducing greenhouse gas emissions. Include: a comprehensive greenhouse gas emissions inventory and forecast; emissions reduction target(s); sequestration; and a program for monitoring and reporting results.	CC, CM, PC, CED	Immediate need (2022-2023)	High (unfunded)
EC 1(B)	Explore the use of formal interlocal cooperation agreements with utility providers to reduce waste, promote water conservation, and improve energy efficiencies.	CC, CM, CA, LKVW, LWD, PCU, PSE, TP, CED	Near-term (2022-2025)	Medium
EC 1(C)	Develop a program to inform residents and businesses about key climate change challenges and potential solutions.	CCOMM. CA, CED	Near-term (ongoing)	High
EC 1(D)	Collaborate with Pierce Transit, Sound Transit, WSDOT Rail Division, Amtrak and major employers in Lakewood to promote greater transit opportunities.	CC, PT, ST, WSDOTR, Amtrak	Long-term	Unknown
EC 1(E)	Amend/revise the current strategic plan that will help guide and focus City resources and program initiatives to (1) reduce greenhouse gas production and the carbon footprint of City government and the Lakewood community, and, (2) reduce and minimize the potential risks of climate change.	CC, CM, CED	Near-term (biannually)	High
EC 1(F)	Undertake a policy review of City comprehensive, strategic and subarea plans to assure that City policies are appropriately targeted to prepare for and mitigate potential impacts of climate change.	CC, PC, CM, CED	Near-term (biannually)	High

Table 6**GOAL EC 2: Clean and Efficient Transportation Options
TASKS**

No.	What	Who	When	Recommended Priority
EC 2(A)	<p>Climate-Friendly Fuel Using Vehicles</p> <p>Support the use of highly efficient climate-friendly fuel using vehicles, adequate alternative refueling stations and the use of waste for producing fuel where feasible or rational.</p>	CA, CED, PWE, O&M	Near-term (2022-2025)	Low
EC 2(B)	<p>City Vehicles Transition</p> <p>Increase the share of climate-friendly vehicles and use of climate-friendly fuels in the City and consider including bicycles in a corporate fleet where feasible.</p>	CA, O&M	Near-term (Ongoing)	Medium (unfunded)
EC 2(C)	<p>Safe and Convenient Public Transit Options</p> <p>Continue to collaborate with Pierce Transit, Sound Transit, Washington Department of Transportation (WDOT), and major employers in Lakewood that provide shuttle services to explore the potential for expanding transit in the evenings and late nights, and for people with special needs.</p> <ul style="list-style-type: none"> ▪ Explore the potential to enhance Lakewood's paratransit service. ▪ Collaborate with regional and Pierce transportation agencies to maintain and enhance service within the City and region. ▪ Explore strategies to address affordability, access and safety. ▪ Expand outreach and information programs to promote transit use. ▪ Work with Sound Transit to provide for extended hours of operations at the Sound Transit Lakewood Station and to expand the existing parking garage. 	CA, CM, PT, ST, CPSD, CPTC, COMM, PWE, CED	Mid-term	Medium (unfunded)
EC 2(D)	<p>Transit Incentives Program</p> <p>Work with transit partners to develop an incentives program to expand transit use</p>	CA, CM, PT, ST	Mid-term	Medium (unfunded)

Table 6

**GOAL EC 2: Clean and Efficient Transportation Options
TASKS**

No.	What	Who	When	Recommended Priority
	<p>among residents and employees in Lakewood.</p> <ul style="list-style-type: none"> ▪ Target potential new riders as well as high-need population groups such as families, youth, seniors and people with disabilities. ▪ Explore the potential for supporting fare-free transit zones in major commercial areas, free or very low-cost bus passes for target groups, a bus rapid transit system that connect Downtown Tacoma to Lakewood, and online tools for providing real time information to transit riders. 			
EC 2(E)	<p>Bicycle and Pedestrian Plans</p> <p>Develop and implement citywide bicycle and pedestrian plans to make Lakewood a more pedestrian and bicycle-friendly City.</p> <ul style="list-style-type: none"> ▪ Update the City's Non-Motorized Transportation Plan. <ul style="list-style-type: none"> - Identify gaps in the network, major travel routes and priority safety improvements. - Designate a network of multi-use trails and off-street paths. Include connections to open space amenities such as Fort Steilacoom Park and Chamber Creek. - Update design guidelines and standards for bicycle and pedestrian facilities and amenities that meet local, state and federal standards. Include a uniform citywide signage plan and comply with all Americans with Disabilities Act (ADA) and Washington State accessibility requirements. 	CC, CM, PC, PWE, CED	Near-term (2022-2025)	High (unfunded)

Table 6

**GOAL EC 2: Clean and Efficient Transportation Options
TASKS**

No.	What	Who	When	Recommended Priority
	<ul style="list-style-type: none"> - Explore the potential to designate pedestrian priority areas or districts. Include strong connections to the downtown, recreation destinations, commercial and mixed-use streets, transit stations and schools. Address pedestrian and bicycle connections in parking lots. - Collaborate with Pierce County, University Place, the Town of Steilacoom, Tacoma, and WSDOT to ensure links to a regional trail network. - Coordinate efforts with ongoing bicycle and pedestrian community initiatives. 			
EC 2(F)	<p>Promote Bicycle Use</p> <p>Encourage safe and convenient bicycle use by residents, employees and visitors. Consider strategies that expand bicycling as a viable mode of transportation for people of all ages and abilities.</p> <ul style="list-style-type: none"> ▪ Require businesses to provide bicycle amenities such as secured bicycle parking, showers and lockers for employees who bike to work. 	COMM, CED, PWE	Near-term (Ongoing)	High
EC 2(G)	<p>Safe Routes to School Program</p> <p>Continue current efforts with the Clover Park School District, and other educational institutions to develop a Safe Routes to School Program. Identify and prioritize improvements necessary to make alternative modes of getting to and from school safer and more appealing.</p> <ul style="list-style-type: none"> ▪ Explore opportunities to create “walking school bus” programs where parents and other responsible adults 	PWE	Near-term (Ongoing)	High

Table 6				
GOAL EC 2: Clean and Efficient Transportation Options TASKS				
No.	What	Who	When	Recommended Priority
	can share the responsibility of escorting children to and from school by foot or bicycle.			
EC 2(H)	Car and Bicycleshares Encourage car and bicycle sharing. Collaborate with service providers to identify potential sites for locating carshares.	PWE, CED	Long-term	Low (City lacks residential density at this time to promote this program)
EC 2(I)	Carpool, Rideshare and Shuttle Services Support transportation agency efforts to provide alternative commuting modes including carpooling, ridesharing, van and shuttle bus service for large employers or retail destinations.	CA, CCOMM, PWE, CED	Near-term (2022-2025)	High

Table 7				
GOAL EC 3: Sustainable and Efficient Energy Systems TASKS				
No.	What	Who	When	Recommended Priority
EC 3(A)	Renewable Energy Encourage and support the generation, transmission and use of locally distributed renewable energy. Advocate at the regional and state level for upgrades to the existing power grid so that it can support renewable energy production and transmission.	CC, CA, CM, CED, COMM	Long-term	High
EC 3(B)	Energy Demand Reduction Work with energy providers to develop strategies that will reduce energy demand and promote energy conservation. Collaborate with neighboring jurisdictions to share best practices and implement regional	LKVW, PSE, TP, CC, CM, PWE, CED	Near-term (ongoing)	High (unfunded)

Table 7**GOAL EC 3: Sustainable and Efficient Energy Systems
TASKS**

No.	What	Who	When	Recommended Priority
	programs to help residents and businesses meet regional demand reduction targets.			
EC 3(C)	<p>Solid Waste Reduction and Recycling</p> <p>Work with the current solid waste facility franchise holder and Pierce County to expand recycling programs and reduce the generation of solid wastes.</p> <p>Potential measures could include: providing recycling containers in parks and public spaces; establishing computer reuse and recycling programs; expanding or enhancing recycling and green waste services for all residents and businesses; and providing locations for household hazardous wastes to be recycled. Programs should also include outreach and education efforts.</p>	CC, CM, CA, PCU, WC, COMM	Near-term (2022-2025)	High (unfunded)
EC 3(D)	<p>Water Conservation</p> <p>Implement water conservation efforts for households, businesses, industries and public infrastructure. Include measures such as the following:</p> <ul style="list-style-type: none"> ▪ Require low-flow appliances and fixtures in all new development; ▪ Work with the Lakewood Water District to create an incentives program that encourages retrofitting existing development with low-flow water fixtures; ▪ Require new development and landscaped public areas to use state-of-the-art irrigation systems that reduce water consumption including graywater systems and rainwater catchment; ▪ Encourage use of drought-tolerant and native vegetation; and ▪ Require development project approvals to include a finding that all feasible and cost-effective options for 	CC, CM, PC, CED, LWD, PWE	Near-term (2022-2025)	High

Table 7				
GOAL EC 3: Sustainable and Efficient Energy Systems TASKS				
No.	What	Who	When	Recommended Priority
	conservation and water reuse are incorporated into project design including graywater systems.			
EC 3(E)	Multi-Family Housing Work with utilities to explore strategies to reduce GHG emissions in multifamily housing.	CED, TP, PSE, LKVW	Near-term (2021-2025)	High
EC 3(F)	City Vehicle Fleet Electrification Develop fleet electrification plan including necessary charging infrastructure and implement electric first policy when purchasing replacement vehicles and other fuel burning equipment. When electric vehicles are inadequate, hybrid vehicles are preferred choice.	CA, CM, O&M	Medium	Low (unfunded)
EC 3(G)	City Employee Trip Reduction Establish a trip reduction policy that includes a remote work strategy, and appropriate technology.	CA, CM	Near-term (2021)	High

Table 8				
GOAL 4: Sustainable Development TASKS				
No.	What	Who	When	Recommended Priority
EC 4(A)	Subarea Plans Lakewood has one approved subarea plan (the Downtown Plan) and a second, the Lakewood Station District under preparation. The City shall take all necessary steps to keep these subareas up-to-date as market conditions change. Further, both subareas shall receive priority in capital improvement planning and funding.	CC, CM, PC, CED	Near-term (2020-2021)	High

Table 8**GOAL 4: Sustainable Development
TASKS**

No.	What	Who	When	Recommended Priority
EC 4 (B)	Expand and enhance open space lands throughout the City. Continue current efforts to acquire property and expand existing parks and open spaces.	CC, CA, PARKS,	Near-term (ongoing)	High (depends on grant availability)
EC 4 (C)	Corridor Improvement Plans Develop plans for key commercial corridors in the City to guide redevelopment of these areas into mixed-use, pedestrian and transit-oriented corridors and nodes. Possible corridors include South Tacoma Way, Steilacoom Boulevard SW, Bridgeport Way, and Union Avenue SW. Include development standards and urban design guidelines.	PC, CED	Medium	High (unfunded)
EC 4(D)	Neighborhood Revitalization Encourage, promote and contribute to the revitalization of all neighborhoods. Collaborate with community leaders and organizations, neighborhood associations, and neighboring jurisdictions to address community needs. Identify needed improvements and funding mechanisms. Actively work to reduce blight throughout the City and promote the upkeep of vacant lots.	CED, CA	Near-term (ongoing)	High (fully funded)
EC 4(E)	Infill Audit Conduct a sustainability audit that evaluates existing plans, ordinances, and development standards to identify regulatory barriers to infill development.	PC, PWE, LWD, CED	Near-term (2021-2025)	Medium (unfunded)
EC 4(F)	Infill Design Conduct a feasibility study to determine how best to allow alternative uses and designs within vacant low-density residential areas. Provide outreach in identified neighborhoods.	PWE, CED	Near-term (2021-2025)	High (unfunded)
EC 4(G)	Street Design Standards	CC, CM, PC, PWE, CED	Near-term (2021-2025)	High (some programs are already

Table 8

**GOAL 4: Sustainable Development
TASKS**

No.	What	Who	When	Recommended Priority
	<p>Review and if appropriate, update the City's street design standards so that they support public transit, bicycles and walking on all streets. The updated standards should be consistent with and tailored to street or trail function and adjacent land use type.</p> <ul style="list-style-type: none"> ▪ Pedestrian-friendly designs should address maximum lane widths, maximum curb radii, sidewalk width, curb ramps and Washington State Accessibility requirements. Bicycle-friendly design should address lane widths, street and intersection crossings and parking areas. Include guidelines for transit access. ▪ Identify priority thoroughfares for developing new green streets in the City to implement a natural systems approach for stormwater management and to expand urban greenery. ▪ Evaluate the feasibility of reducing the number or width of travel lanes on future, key mixed-use streets that may have excess capacity and using the capacity and/or regained width for wider sidewalks and bicycle lanes. 			<p>underway; others have not been started)</p> <p>EC4(G) also has relationships with EC2(E)</p>
EC 4(I)	<p>Landscape Design Guidelines</p> <p>Use appropriate tree species and densities in buffer areas.</p> <p>Ensure that medians include native plants and trees and are wide enough to support their long-term viability with the least demand for irrigation and maintenance.</p> <p>Prioritize the use of locally propagated native drought-tolerant vegetation and discourage the use of invasive non-native species in home landscaping.</p>	CC, CM, PC, CED, PWE, O&M	Near-term (2021-2025)	High (unfunded)

Table 8

**GOAL 4: Sustainable Development
TASKS**

No.	What	Who	When	Recommended Priority
	Promulgate an urban forest management/ master plan reforestation plan.			
EC 4(J)	<p>Evaluate the feasibility of expanding tree planting within the City, including an evaluation of potential carbon sequestration as well as GHG emissions. Specific tasks include:</p> <ul style="list-style-type: none"> ▪ Encourage active forest management of trees and invasive species in the open space to encourage ecosystem health and reduction of fuel load. ▪ Where appropriate for ecosystem health, plant additional trees on City-owned land, including public parks, open space, medians, and rights of way. ▪ Review parking lot landscape standards to encourage appropriate tree cover and associated sequestration potential. ▪ Require that the site planning, construction, and maintenance of new development preserve existing healthy trees and native vegetation on site to the maximum extent feasible. Replace trees and vegetation that cannot be saved. ▪ Where appropriate, encourage community members to plant trees on private land (taking into consideration fuel reduction goals and defensible space requirements). ▪ Consider creating a tree giveaway event or providing lower-cost trees to the public through a bulk purchasing program. ▪ Encourage the creation of community gardens on public and private lands by community groups. ▪ Provide information to the public, including landscape companies, gardeners, and nurseries, on carbon 	CC, CM, PC, CED, PARKS, PWE,	Near-term (2021-2025)	High (unfunded)

Table 8**GOAL 4: Sustainable Development
TASKS**

No.	What	Who	When	Recommended Priority
	sequestration rates, drought tolerance, and fire resistance of different tree species.			
EC 4(K)	Development Code Review Review development code for opportunities to increase building energy efficiency, expand the use of clean and renewable energy and increase the installation of green infrastructure.	CC, CM, PC, CED	Near-term (2021-2025)	High
EC 4(L)	Incentives Policy Consider the use of incentives for new construction projects that exceed energy efficiency standards with a focus on affordable and multifamily housing.	CC, CM, PC, CED	Near-term (2021-2025)	Medium
EC 4(M)	CDBG/HOME Entitlement Programs Install energy efficient appliances, require the conversion of power to all electricity, and upgrade structures to improve energy conservation.	CC, CM, PC, CED	Near-term (2021-2025)	High
EC 4(N)	New Energy Code Beginning in 2021, adopt and enforce the 2018 Washington State Energy Code.	CC, CM, CED	Near-term (2021-2025)	High
EC 4(O)	Local Building Code Amendments Consider local amendments to the building codes to allow for, encourage, or require integration of passive solar design, green roofs, active solar and other renewable energy sources.	CC, CM, PC, CED	Near-term (2021-2025)	Medium
EC 4(P)	Performance-Based Code Alternatives Support the addition of performance-based alternatives to energy codes and appropriate sections of the building code.	CED	Near-term (2021-2025)	High
EC 4(Q)	Sustainable Urban Agriculture Assessment	PARKS, CED	Near-term (2021-2025)	High (partially funded)

Table 8

**GOAL 4: Sustainable Development
TASKS**

No.	What	Who	When	Recommended Priority
	<p>Work with non-profits and regulatory agencies to explore the potential for creating, expanding and sustaining local urban agriculture, including community gardens, orchards and farmers' markets. Urban agriculture has the potential to supplement the availability of fresh fruit and vegetables in the community, provide economic opportunities to Lakewood residents, lower food costs, reduce overall energy consumption and build social cohesion.</p> <p>The assessment could explore the feasibility of implementing the following strategies:</p> <ul style="list-style-type: none"> ▪ Developing a site inventory and a management plan to administer the use of potential urban agricultural sites; ▪ Expanding the number and frequency of farmer's markets throughout Lakewood; ▪ Promoting urban agriculture as a desirable civic activity that improves the quality of urban life, food security, neighborhood safety and environmental stewardship; ▪ Establishing a community-based support system for urban growers such as tool banks, shared processing facilities, farmers' markets, community supported agriculture ventures, funding streams and technical service providers; ▪ Offering locally grown food to local schools, hospitals, nursing homes, daycare centers, correction facilities and businesses such as restaurants, while creating economic opportunities for urban growers and related industries; ▪ Creating training programs for unemployed people to work in urban 			

Table 8				
GOAL 4: Sustainable Development TASKS				
No.	What	Who	When	Recommended Priority
	<p>food-related businesses as a source of jobs;</p> <ul style="list-style-type: none"> Working with representatives of community gardening and urban farming organizations to meet needs unique to urban farm enterprises; Ensuring long-term land commitment for community gardens, entrepreneurial farms and other urban agriculture ventures; Updating building codes to encourage rooftop gardening; and Developing school-based programs that integrate nutrition and gardening in order to raise awareness about the connection between healthy food choices and locally grown fresh produce. 			

Table 9				
GOAL EC 5: Hazards Management TASKS				
No.	What	Who	When	Recommended Priority
EC 5(A)	Refer to Action Items EC 1(C) and EC 1(D).	CC, CED, LPD, WPF, PWE	Near-term (2021-2025)	High
EC 5(B)	Review, and as appropriate, update Lakewood Municipal Code (LMC) Title 14, Environmental Protections. Title 14 provides regulations for geologic hazard areas, flood hazard areas, and critical lands and natural resources. Climate change impacts may require that new regulations be inserted into this chapter.	CC, CM, PC, CED	Near-term (2021-2025)	High
EC 5(C)	Review, and as appropriate update the City's Hazard Mitigation Plan to address climate change.	LPD, WPF	Near-term (2021-2025)	High

Table 9				
GOAL EC 5: Hazards Management TASKS				
No.	What	Who	When	Recommended Priority
EC 5 (D)	Every two years, or as otherwise dictated by Washington State, update LMC Title 15, Buildings and Construction Codes.	CC, CM, CED, WPF	Near-term (2021-2025)	High

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