

**STAFF REPORT FOR THE GROWTH MANAGEMENT COMMISSION MEETING OF  
MAY 31, 2023**

**FILE NO: GM-2023-0163**

**AGENDA ITEM: 6.A**

**STAFF CONTACT:** Hope Sullivan, AICP, Community Development Director

**AGENDA TITLE:** For Possible Action: Discussion and possible action regarding a recommendation to the Board of Supervisors for a resolution establishing the maximum number of residential building permit allocations under Chapter 18.12 (the "Growth Management Ordinance") of the Carson City Municipal Code ("CCMC") for the years 2024 and 2025, estimating the maximum number of residential building permits for the years 2026 and 2027, establishing the number of building permit allocations within the development and general property owner categories, and establishing a maximum average daily water usage for commercial and industrial building permits as a threshold for Growth Management Commission review. (Hope Sullivan, hsullivan@carson.org).

**STAFF SUMMARY:** The Growth Management Commission is required to make annual recommendations to the Board of Supervisors to establish the number of residential permits that will be available for the following calendar year. This has historically been based upon a maximum growth rate of 3%. The commercial and industrial daily water usage threshold is proposed to be modified from 15,000 gallons per day annual average to 10,000 gallons per day annual average, above which Growth Management Commission approval is required.

**PROPOSED MOTION:** "I move to recommend to the Board of Supervisors approval of the draft resolution."

**BACKGROUND:**

The Planning Commission serves as the Growth Management Commission under the Growth Management Ordinance. The Growth Management Commission is responsible for annually reviewing the information provided by various City departments and outside agencies and for submitting a recommendation to the Board of Supervisors to:

1. Establish a fixed number of residential building permits to be made available in the following two calendar years (2024 and 2025, on a rolling calendar basis) and estimate the number to be made available in the third and fourth years (2026 and 2027).
2. Establish a distribution of the total building permit entitlements between the "general property owner" and "development project" (31 or more lots or units) categories.
3. Establish a maximum average daily water usage for commercial and industrial building permits as a threshold for Growth Management Commission review.

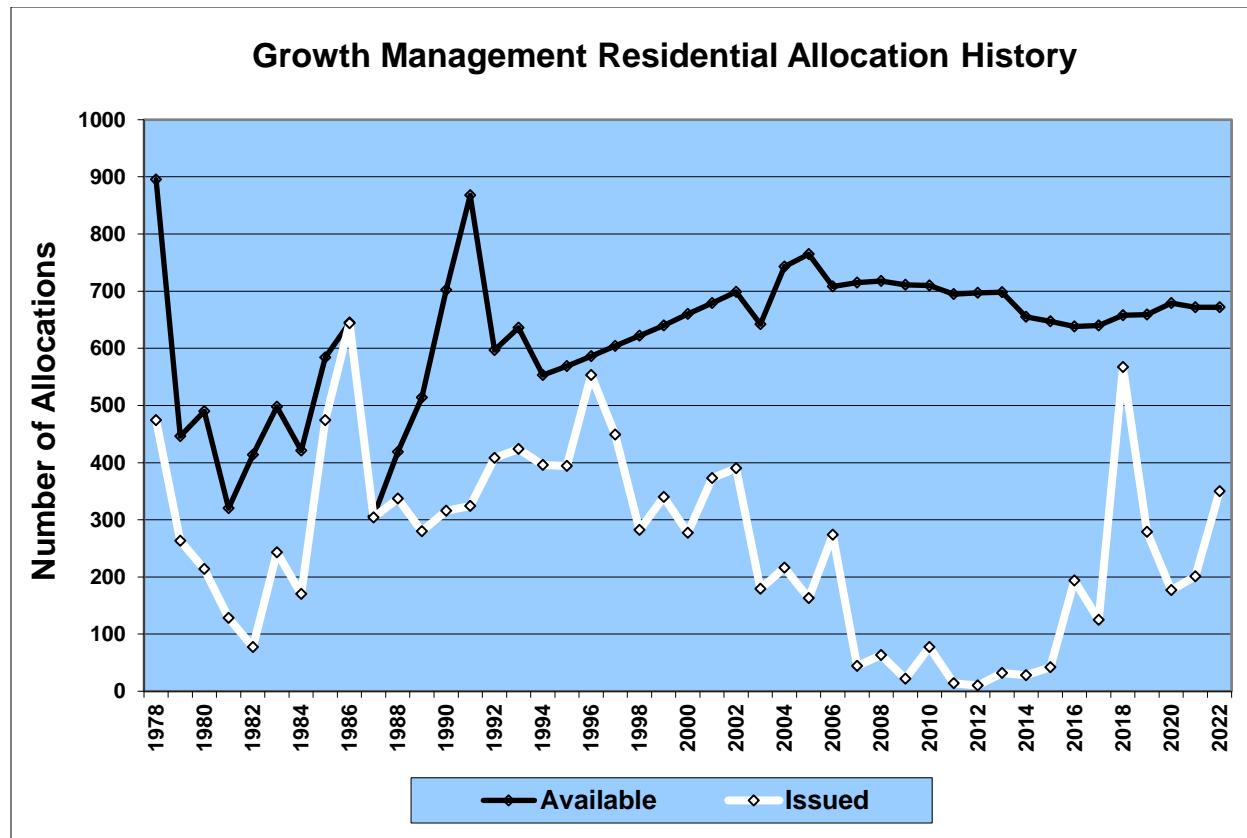
CCMC 18.12.015 (Purpose) states, in part:

2. *The board declares that the following essential resources shall be considered for the managed growth of Carson City:*
  - a. *City water: quantity, quality, supply, capacity, infrastructure;*

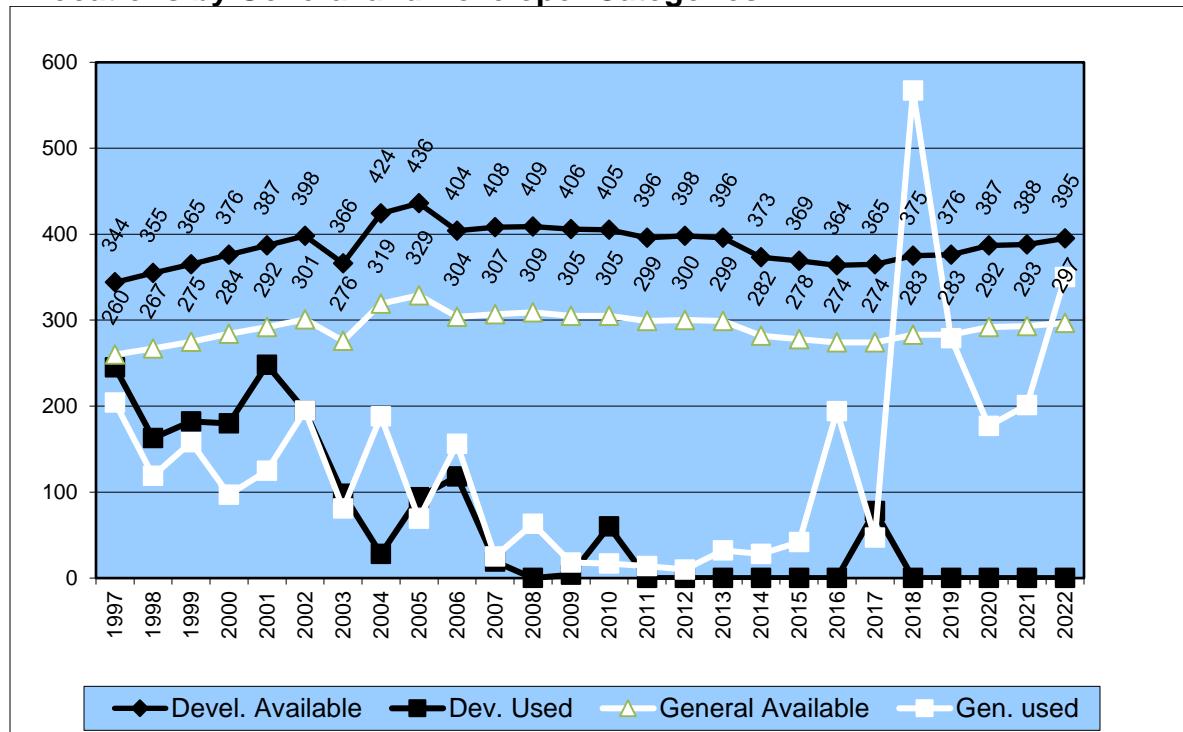
- b. City sewer: treatment and disposal capacity; system or infrastructure ability to transport sewage from a residential dwelling unit of the treatment system;
- c. Sheriff protection services;
- d. Fire protection services;
- e. Traffic and circulation;
- f. Drainage and flooding;
- g. School enrollment and capacity;
- h. Parks and recreation; and
- i. Other resources or services as determined by the board.

The Growth Management Ordinance was originally implemented in the late-1970's in response to a moratorium by the State Division of Water Resources on new subdivisions in Carson City due to wastewater and water capacity issues. The program was developed in cooperation with the State to address its concerns. Per CCMC 18.12.055, at the beginning of each calendar year, the residential allocations are put into two categories: the "general property owner" and "development project" (owners/developers with 31 or more lots/units) categories in a 43%-57% split. After the first quarter of the year, all allocations are combined into a single category and available on a first come first serve basis. For most of the Growth Management program's history, the total number of building permit allocations available each year has been based upon a maximum growth rate of 3%.

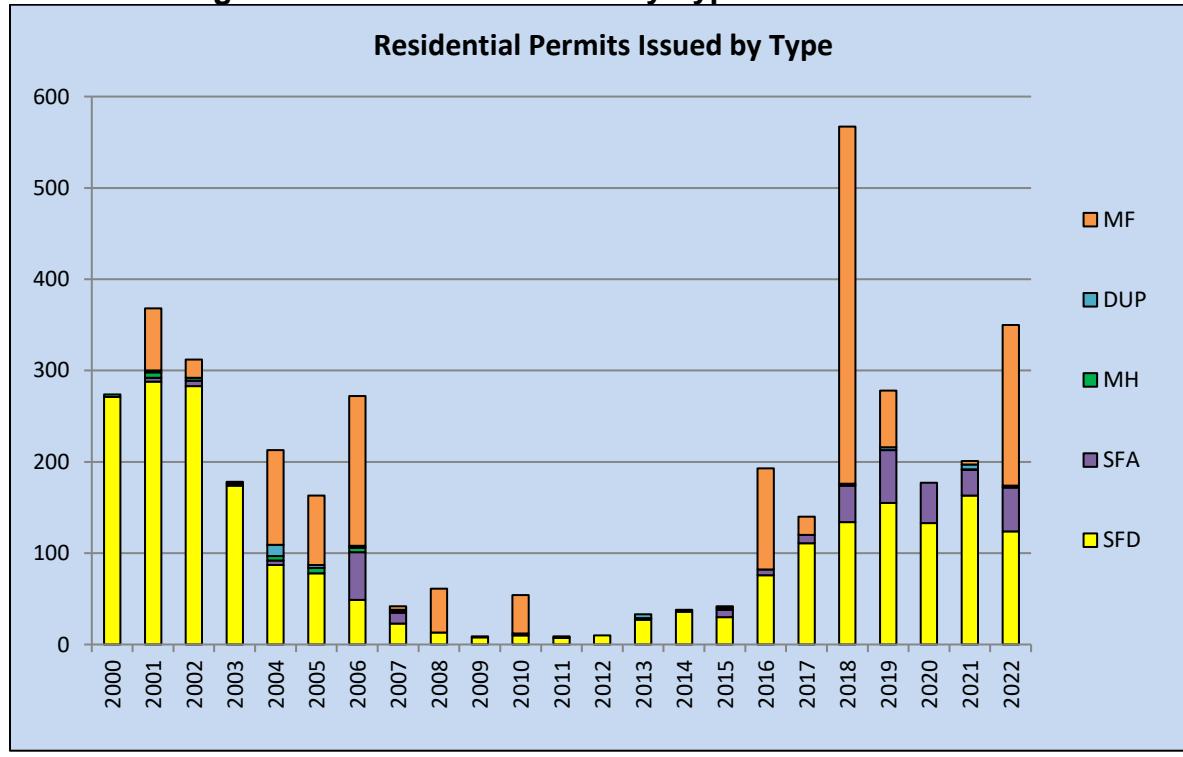
The following graphs provide historical data regarding the number of allocations available, the total number of permits used, the number of permits used by the general property owner and development categories, and entitlements by type of residence.



## Allocations by General and Developer Categories



## Growth Management Allocations Issued by Type



SFD – Single Family Detached  
SFA – Single Family Attached

DUP – Duplex  
MF – Multi-family attached (3+ units, single ownership)

MH – Manufactured Home

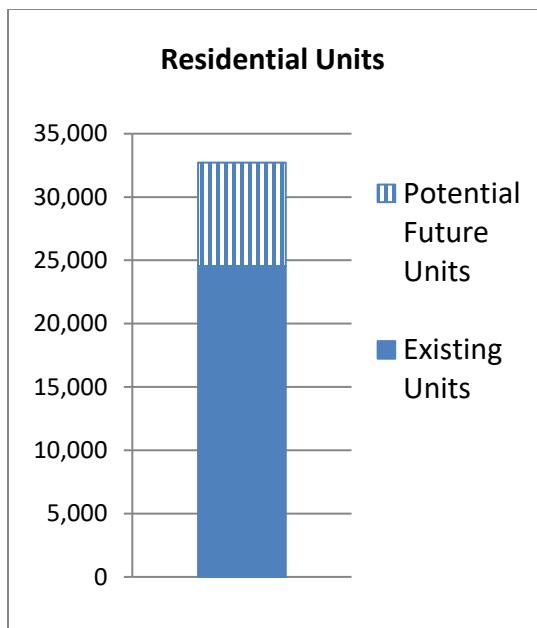
## DISCUSSION

The annual growth management report and associated Growth Management Commission meeting is an opportunity to understand the capacity of and impact of growth on the City's and Carson City School District's resources. Based on its understanding of the capacity and impacts, the Growth Management Commission makes a recommendation to the Board of Supervisors relative to the provision of residential allocations and threshold water use for commercial and industrial building permits.

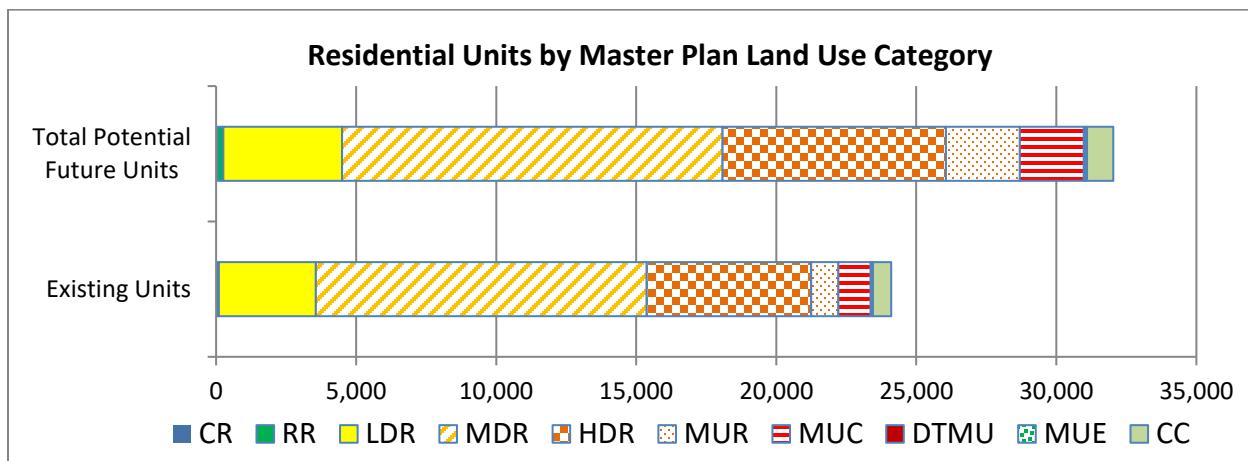
Comments have been received from the Carson City Public Works Department ("Public Works"), Carson City Sheriff's Office, Carson City Fire Department, Carson City Health and Human Services Department, Carson City Parks, Recreation and Open Space Department and the Carson City School District. Although agencies acknowledge that increased growth creates increased demand for services, no department or agency recommended a reduction in the number of residential permits to be made available in 2024.

Since 2019, the Growth Management Commission has reviewed a parcel-based analysis of how much growth the City can accommodate while staying within its allocated water resources. Public Works annually conducts a water capacity analysis assuming the entire City is developed to its maximum capacity based on current Master Plan land use designations and zoning. It includes residentially designated parcels being developed to their maximum potential densities and commercial and industrial parcels being fully developed. This year's analysis concludes that Carson City has the allocated water resources to accommodate buildout in accordance with current Master Plan and zoning. This parcel-by-parcel analysis allows the City to continue to monitor how proposed changes in land use or actual water usage over time impacts the long-range forecast for water capacity.

Based on updated information, Carson City has approximately 24,464 existing residential units, an increase of 103 units from when this report was presented a year ago. Assuming all currently approved developments are completed at their proposed densities and all lands designated for residential uses are developed or redeveloped to the maximum densities, an additional 8,384 residential units could be developed for a total of 32,848 residential units. For example, for an existing 2-acre parcel zoned with a required 1-acre parcel size with one house currently on the parcel, it is assumed that an additional dwelling unit could be developed on that property. It is estimated that 32,848 residential units would result in a population of approximately 76,207 (using 2.32 residents per dwelling unit). Note the 2020 Census reports an average household size of 2.32 in Carson City.



The following chart shows existing and total potential residential units by the Master Plan land use designation in which the properties are located.



**Key:**

CR – Conservation Reserve (private lands)  
 RR – Rural Residential  
 LDR – Low Density Residential  
 MDR – Medium Density Residential  
 HDR – High Density Residential

MUR – Mixed-Use Residential  
 MUC – Mixed-Use Commercial  
 DTMU – Downtown Mixed Use  
 MUE – Mixed-Use Employment  
 CC – Community Commercial

Per the State demographer, the City's population as of July 1, 2022 was 58,314. The State demographer's five year projection is on the table below.

	Total Population	Change Previous Year	Percentage Change
2022	58,314		
2023	58,722	409	0.7%
2024	59,116	394	0.7%
2025	59,508	392	0.7%
2026	59,908	400	0.7%
2027	60,305	397	0.7%

### Water Conservation

Water conservation measures are applied both inside and outside of buildings. The Uniform Plumbing Code addresses water consumption rates for toilets, sinks, and showers by limiting water usage per flush and flow rates. Division 3 of Title 18 Appendix of the CCMC (the "Carson City Development Standards" or "CCDS") includes landscaping standards that encourage the utilization of water savings irrigation design, limitations on the use of turf in landscaping to conserve water by minimizing the need for irrigation, and the requirement for a three foot wide landscape buffer area between any turf areas and hardscape to capture irrigation overspray and runoff.

Additionally, per CCMC 12.01.120, as noted below, the waste of water is prohibited.

#### *12.01.120 - Waste of water prohibited.*

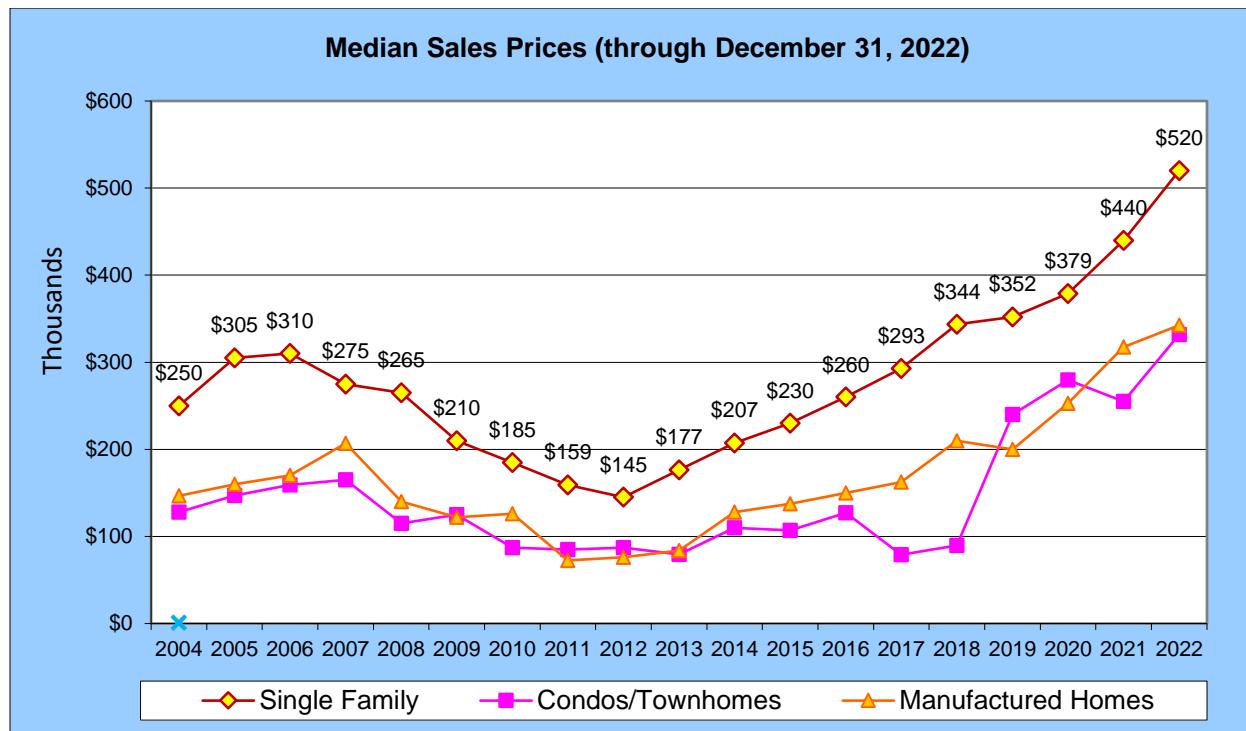
*It is unlawful for anyone connected to the city water system to waste water. For the purpose of this section, "waste" means any excessive usage which causes water to run into or along any street, alley, storm drainage system, or into or upon another's property; provided nothing in this section shall be construed as to apply to the accidental breaking of any hose, water pipe, or other irrigation device unless same is not abated within 2 hours after personal notice of such break is given the person owning, controlling or maintaining the same or having any pecuniary interest therein. If such breaks are not repaired or the water turned off within the specified time, it shall be the duty of the utilities director or his/her designee to cause the water to be shut off, and it is unlawful for any person to again turn on such water until proper repairs have been made. If personal notice is unable to be given, the water shall be immediately shut off by the public works director or his/her designee and a notice shall be placed on the front door stating the reason(s) for said shutoff. Each and every request for the water to be turned on will require the payment of \$25.00 which the city will add to the monthly bill.*

*Exception: Car washing by civic or philanthropic groups may receive written approval from the public works director or his/her designee when it is determined that said usage will not be detrimental to the city's water situation.*

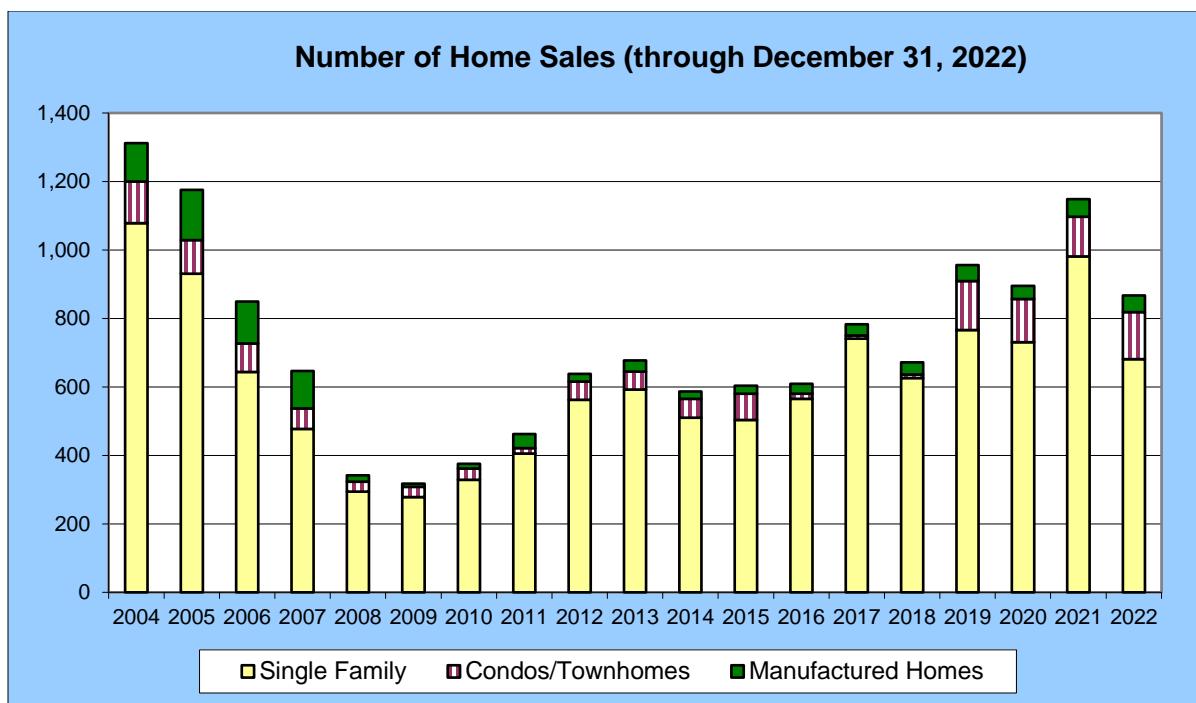
This provision is enforced by the Water Division of Public Works throughout the year, and especially in the summertime. Staff works directly with property owners to correct the violation.

### Housing sales trends

Traditionally, data regarding home sales and sale prices is provided as part of the growth management annual report. The number of home sales and sales price, as well as many other factors, can have an impact on the demand for construction of new homes. The following charts show median home sales price and sales volume trends.



As the graph above shows, the median sales price of housing has continued to rise for the past ten years from a low in 2012 of \$145,000 to a high in 2022 of \$520,000.



Calendar year 2021 sales included 681 single family homes, 137 condominiums or townhomes and 49 manufactured homes. In 2021, there were 981 single family home sales. The reduction likely represents a reduction in inventory.

#### Determination of annual number of available allocations

The Growth Management Ordinance does not specify how to determine the number of allocations that should be made available each year, only that “essential resources” must be considered in determining that number. For most of the Growth Management Ordinance’s history, a general rule of allowing up to 3% growth has been used.

Various methods of determining the exact number of allocations to be made available have been used over the program’s history, resulting in a wide range of allocation maximums over the years, particularly before 1992. Unused allocations were carried over to the following years during a certain period, with adjustments made every few years. During a period in the 1990’s, the available allocations were increased by 3% each year, even though actual population growth was occurring at a slower rate during that same period. The growth management files from prior to 2006 do not indicate the exact methodology used in determining the number of allocations.

In 2006, the current method of determining the number of allocations was established. This method uses the most recent available Nevada State Demographer population estimates for Carson City (58,314) as the base for establishing the number of permits that would, in theory, result in 3% growth. This method also uses the latest available Census data for the average number of persons per household (2.32) to calculate the allocations. The details of the methodology used in determining the recommended allocations for 2024 are included in Attachment D. The methodology has been included in each report since 2006 to establish a consistent method that can be tracked through time.

While the Growth Management Ordinance requires establishing the number of allocations to be made available in the second year and estimating the number for the third and fourth years, the ordinance also requires that these numbers be evaluated and set annually. Therefore, if certain service capacity issues arise in any given year, the estimated number of allocations for future years can be adjusted. Also, the number of allocations can only approximate how much actual growth will occur in the City.

Utilizing this methodology, the proposed number of residential allocations in 2024 utilizing a 3 percent growth rate would be:

2024	765
2025	788
2026	811
2027	834

#### Commercial and Industrial Average Daily Water Usage Threshold

The Growth Management Commission is also required to establish the average daily water usage threshold for Growth Management Commission review. In considering commercial and industrial permits, CCMC 18.12.070 states, in part, that:

*“A project which equals or exceeds the maximum average daily water usage threshold established by the board for water shall result in a consideration of the project before the commission prior to issuance of a building permit. The commission may approve the building permit, approve the permit with conditions, or deny the permit on the basis of the effect of the project on the city’s essential resources. The commission shall base its decision on the quantity of water consumed by the use for which the building is constructed compared to the availability of water; the ability of the city to deliver water services to the structure; and other effects of water usage ...”*

Since 2005, the Growth Management Commission has approved twelve requests for a building permit that exceeds the water usage threshold and denied none. The table below provides a description of the eleven approvals.

Project	Address	Request
GM-2021-0131: Car Wash	3390 S Carson Street	29,500 gpd
GM-19-141: RV Resort	1400 Old Hot Springs	33,793 gpd
GM-18-190: RV Resort	1400 Old Hot Springs	68,500 gpd
GM-16-161: RV Resort	1400 Old Hot Springs	59,700 gpd
GM-15-039: Capitol Mall Project	n/s Musser, s/s Robinson, w/s Stewart, e/s Curry	334,339 gpd
GM-15-025: Car Wash	1250 & 1300 E William St	8,139 gpd
GM-15-024: Car Wash	3555 S. Carson St.	8,139 gpd
GM-14-163: Congregate Care / Nursing Home	608 & 610 W Washington	19,280 gpd
GM-14-005: Car Wash	2651 Hwy 50 E	13,438 gpd
GM-10-093: Restaurant (Olive Garden)	S Carson St.	9,100 gpd
GM-07-114: Concrete Plant Operation	5855 Sheep Drive	8,700 gpd
GM-08-077: Casino and Hotel	2670 HWY 50 and Lompa	82,916 gpd

In 2016, the City changed the threshold from 7,500 gallons per day to 15,000 gallons per day. The modification was due to “recent and continued improvements to the water system and additional water resources being produced and delivered from the Carson Valley ....” In addition to the water infrastructure improvements, the City’s development standards and building codes have improved over the years to where water conservation measures, such as low-flow fixtures, are included as part of the standard requirements for new commercial and industrial development.”

This past year, the Public Works department was able to analyze water usage data for commercial and industrial properties across Carson City. The analysis revealed that the 10,000 gallons per day threshold represented the cut off for the top 10 percent of the highest commercial / industrial water users in Carson City. The Public Works Director finds that this is a more appropriate threshold in determining which applications should be under the review of the Growth Management Commission. Therefore, it is recommended that the average daily water usage threshold for Growth Management Commission review be reduced from 15,000 gallons per day to 10,000 gallon per day.

Staff further recommends continuing language included in Resolution No. 2021-R-23 which states:

*“... the Growth Management Commission must first find that the use utilizes water conservation measures and techniques. If that finding is made, the Growth Management Commission must consider if the use will promote health, welfare, safety or quality of life; or create quality jobs; or promote recreation and tourism. If both such findings are made, an application under subsection 5 can be granted.”*

No applications for Growth Management Commission approval have been submitted since the effective date of Resolution 2021-R-23.

#### **ALTERNATIVES AND CONCLUSION:**

Per the Growth Management Ordinance, the Growth Management Commission must recommend the total number of available permits and the distribution between categories for the years 2024 and 2025 and recommend an estimated number of total permits available for 2026 and 2027. A distribution of 43% to the “general property owner” category and 57% to the “development project” category has historically been established and is recommended to continue. The table below shows allocation alternatives for various growth rates and how these rates would affect the number of available allocations.

#### **Permit Allocation Alternatives**

Rate	Category	2024	2025	2026	2027
3.0%	Total	765	788	812	836
	General	339 (43%)	330 (43%)	--	--
	Development	436 (57%)	449 (57%)	--	--
2.5%	Total	637	653	669	686
	General	274 (43%)	281 (43%)	--	--
	Development	363 (57%)	372 (57%)	--	--
2.0%	Total	510	520	530	541
	General	219 (43%)	223 (43%)	--	--
	Development	291 (57%)	297 (57%)	--	--

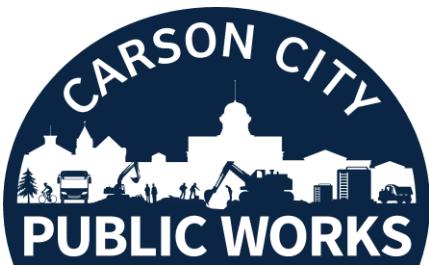
Carson City has historically based the number of available permits in a given year on allowing a maximum growth rate of 3%. Note that future allocation estimates assume a continued actual growth rate of 3% and are adjusted each year based on actual estimated population growth figures—i.e. actual growth of less than 3% would result in fewer allocations in future years.

Staff recommends continuing the allocation system based upon a maximum growth rate of 3%. Refer to Attachment C to see how the allocations would be distributed throughout the year per the requirements of the Growth Management ordinance. The recommended allocation would allow the maximum flexibility in providing building permits as new development occurs, though longer-term growth is expected to continue at a moderate pace. Unnecessarily limiting the number of building permits could have a negative impact on the ability of developers to obtain financing for proposed developments and have a generally suppressive effect on the Carson City economy. Should a lower limit actually limit developers' ability to increase the housing supply to meet market demand, it could also reduce the affordability of housing in Carson City.

Please contact Hope Sullivan, Director of the Carson City Community Development Department, 283-7922 or [hsullivan@carson.org](mailto:hsullivan@carson.org) if you have any questions regarding the Growth Management program.

Attachments:

- A) Agency comments
- B) Draft Resolution
- C) Building Permit Distribution Table for 2023 (3%)
- D) Methodology, Number of Available Permits



**CARSON CITY NEVADA  
Consolidated Municipality and  
State Capital  
PUBLIC WORKS**

# MEMORANDUM

**TO:** Carson City Planning Commission  
**FROM:** Darren L. Schulz, PE – Carson City Public Works Director  
**DATE:** May 1, 2023  
**SUBJECT:** Growth Management Report 2023

Thank you for the opportunity to inform you of the status of our operations and our ability to serve Carson City at a projected growth rate up to 3% through 2024.

The operational reports are as follows:

## **WATER OPERATIONS:**

Carson City's existing usable water rights are 18,648 acre-feet per year.

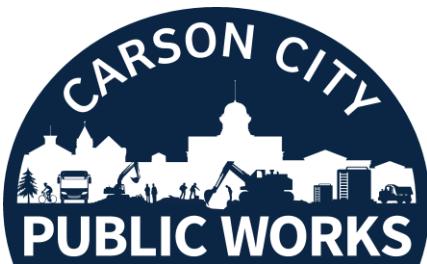
Carson City must allocate approximately 2,305 acre-feet to remaining approved undeveloped lots. As required by the State Engineer's Office, additional parceling is also being accounted for. In 2022, Carson City's total water production was 11,115 acre-feet. This number represents the total water produced in order to meet the customer's demands.

Subtracting the 2022 total water production of 11,115 acre-feet and outstanding water commitments of 2,305 acre-feet from Carson City's usable water rights of 18,648, leaves a balance of approximately 5,228 acre-feet, which may be allocated towards new development.

Carson City continues to utilize conjunctive use water management. Carson City fulfills its annual water demands from approximately 75% groundwater and 25% surface water sources. Through conjunctive resource management, Public Works operates the water system, so Carson City's needs are met through a combination of groundwater and surface sources, making the best use of the water resources available. The goal of conjunctive management is to maximize surface water when available to allow the groundwater aquifers to rest.

Carson City will continue the outside water management program during the 2023 irrigation season, which includes a THREE-DAY-A-WEEK schedule where odd-numbered addresses water on Tuesday, Thursday and Saturday and even-numbered addresses water on Sunday, Wednesday and Friday, with no watering between the hours of 10:00 a.m. to 6:00 p.m. Watering on Mondays is prohibited. This allows time for resting of the system and filling of tanks.

State Engineer's Order 1140 allows Carson City to pump additional Eagle Valley groundwater during drought years. This allows Carson City to pump a maximum of 11,700 acre-feet from the Eagle Valley ground water



## CARSON CITY NEVADA Consolidated Municipality and State Capital PUBLIC WORKS

basin for a one-year period provided that the average ground water pumped from Eagle Valley over a period of five consecutive drought years will not exceed 9,900 acre-feet annually.

Carson City has built up an additional water rights bank account not included in the total usable water rights number in the previous paragraphs since 2006, through its managed Aquifer Storage and Recovery program within Vicee Canyon recharge basins. The total number of water rights banked under the recharge permit is approximately 3,215 acre-feet, to be able to be used in an emergency basis.

Carson City has always used a drought as the design scenario to meet peak summer demands. Currently, there is approximately 26 million gallons per day (MGD) of production supply for a drought year. The average maximum-day demand from fiscal year 2010 to 2022 was approximately 19.30 MGD. There is approximately 6 MGD of peak supply capability remaining, if all supply sources are functioning.

Carson City Public Works can accommodate the projected 3% growth through 2024, dependent on the completion of the planned capital improvement projects regarding storage, treatment, distribution and production facilities.

With regards to the threshold for Growth Management review, we recommend changing the threshold at 15,000 gallons per day to 10,000 gallons per day. Public Works analyzed water usage data for commercial and industrial properties across Carson City to determine this adjustment to the current threshold. This analysis revealed that the 10,000 gallons per day threshold represented the cut off for the top 10% of highest commercial/industrial water users in Carson City and signified a more appropriate threshold in determining which applications will be under the review of the Growth Management Commission.

### **WASTEWATER OPERATIONS:**

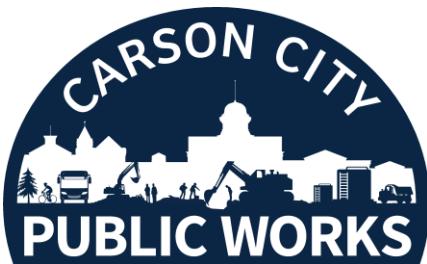
The Water Resource Recovery Facility (WRRF) is permitted to process a sewage flow of 6.9 million gallons per day (MGD) averaged over a 30-day (monthly) period. The 2022 maximum monthly average flow was 5.1 MGD. With respect to the planned growth, a potential development rate of 3% through 2024 could be accommodated by the WWRF and wastewater operations.

### **LANDFILL OPERATIONS:**

The Landfill has a projected life expectancy of approximately 23 years. With respect to the planned growth, a potential development rate of 3% through 2024 could be accommodated by the Landfill.

### **TRANSPORTATION:**

The Carson City Public Works Department is responsible for the construction and maintenance of the City's street network as well as bicycle and pedestrian facilities. Additionally, the City operates a public transit system. The City also works closely with the Nevada Department of Transportation, which owns and operates State highways in the City. The State-owned roads include the Carson City Freeway (I-580), which connects U.S. 395 at U.S. 50 (Spooner) to Reno.



## **CARSON CITY NEVADA Consolidated Municipality and State Capital PUBLIC WORKS**

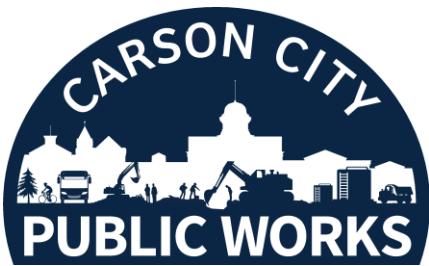
With respect to the planned growth of the City and how that may be expected to impact the City's transportation system, increased traffic volumes anticipated to result from the potential development rate of 3% can be accommodated by the existing and planned transportation system in 2024, dependent on the roadway corridor. This increase can be further mitigated over the next few years by enhancing mode choice and by focusing new development near transit routes. Transportation staff are working on a number of projects and studies focused on long-term concepts for critical corridors anticipated to see the largest increases in traffic volumes such as William Street/US 50 and US 395 in south Carson City. These projects and studies are aimed at improving safety, maintaining traffic operations, entrancing multimodal connectivity, and ensuring options in transportation choice. Although increased traffic volumes are expected to be accommodated by planned projects and existing roadway capacity, roadway maintenance activities continue to operate in a deficit. Consequently, the long-term condition of the City's roadway pavement will continue to deteriorate unless or until the funding gap is reduced. The current estimated deficit in funding to meet our targeted pavement condition is \$20M per year.

Public Works' staff, who serve both the Carson City Regional Transportation Commission (CCRTC) and the Carson Area Metropolitan Planning Organization (CAMPO), are familiar with the current system, the improvements that are planned to be implemented in 2024, and the planned improvements to be implemented through the year 2050. With this knowledge, we have determined that with the exception of a few spot intersections, the current system is operating well with respect to capacity. As development occurs, staff must be mindful of development project impacts to the transportation system and ensure fair and appropriate mitigation measures are implemented. To that end, staff continue to review the Traffic Impact Study requirements provided within Carson City Municipal Code and plan to bring forward various recommendations for amendments in Fiscal Year 2024. CAMPO staff are nearly complete with the Carson Area Transportation System Management Plan aimed at improving transportation operations in the region.

One of the important tools available for these evaluations is a travel demand model developed and maintained as part of CAMPO responsibilities. This model is based on existing and forecasted land use and socio-economic data and is developed and updated in cooperation with the Carson City Planning Division and staff from Lyon and Douglas Counties. The travel demand model is currently being updated with a planned completion date in early 2024. The update to the model will incorporate 2020 census data, new roadway connections resulting from development, new land-use projections, changes to mode choice, and the latest available travel patterns using vehicle data. The model allows for evaluations of the impacts of changes in land use, new development, the transportation network, or both. The model is used to support subarea analyses and to identify long-term critical infrastructure needs along the region's roadways, including those owned by NDOT and outside of Carson City.

### **DRAINAGE AND FLOODPLAIN:**

Consistent with the Regional Floodplain Management Plan and Chapter 13.06 of the Carson City Municipal Code, Open Space, open floodplains are an asset to Carson City. As of April 2023, there are 3,832.5 acres of Special Flood Hazard Area in Carson City. Of that area, 2,718.5 acres or 71% is considered open space. The Regional Floodplain Management Plan affirms the long-term vision of the Carson River Coalition which utilizes a "Living River Approach" that recognizes the importance of balancing the river's natural floodplain form and function with various land uses. Additionally, the City's own Master Plan aligns with the vision identified in the Regional Floodplain Management Plan by outlining specific goals that encourage smart land use planning and discourage development within the 100-year floodplain and other hazard areas. Carson City's Floodplain Management Ordinance and participation in the Community Rating System (CRS) require higher regulatory standards for structures built in a floodplain. All of these goals, requirements, and strategies are designed with



**CARSON CITY NEVADA  
Consolidated Municipality and  
State Capital  
PUBLIC WORKS**

the intent to safeguard waterway corridors, floodplains, wetlands, streams, the Carson River, and protect floodplains.

If the vision of our Regional Floodplain Management Plan is upheld with respect to planned growth, a potential development rate of 3% through 2024 could be accommodated by stormwater infrastructure. Additional studies, especially with respect to the Ash and Kings Canyon watersheds, are being performed to understand the risks and limitations of development in our region. Additional stormwater infrastructure such as regional basins and mindful development using the onsite detention requirements and Low Impact Development (LID) components outlined in the City's Drainage Manual will help ensure those risks are well managed.



## **CARSON CITY, NEVADA**

### CONSOLIDATED MUNICIPALITY AND STATE CAPITAL

### MEMORANDUM

TO: Hope Sullivan, Community Development Director  
FROM: Nicki Aaker, Health and Human Services Director  
DATE: May 4, 2023  
SUBJECT: Growth Management for 2024 - 2025 Residential Allocations and Commercial Average Daily Water Usage

**1. Does your department or agency have any extraordinary service capacity issue that would be negatively impacted by residential growth in 2024-2025? If so, identify the issues.**

If there is a residential population growth in Carson City, the Health Department would experience a slight increase in workload. In the Environmental Health Division, it will be likely that a slight increase in workload would be realized and in the time needed to complete the building permit review process. Increased residential growth will also slightly increase the number of customer complaints regarding unsanitary conditions in their neighborhoods and commercial establishments within our community. In the Human Services Division, there will be a percentage of the population that is low income so as population grows the needs of low-income residents will grow. In addition, with residents aging and on fixed incomes, the need increases as well when the price of goods increase (including housing costs).

**2. Do you recommend limiting the number of residential building permits (new construction) that will be made available for 2024 - 2025 to address these issues? If so, what limit, and how will this limit on residential growth help resolve your service capacity problem?**

No, we do not recommend limiting the number of residential building permits.

**3. What is needed by your department or agency to solve any service capacity issue identified above?**

Depending on the amount of growth, a part time Environmental Health Specialist and a part time Human Services employee may help solve the service capacity issues identified above. Should the Human Services Division need additional personnel, there is the possibility of researching funding opportunities that may help with assisting individuals.

#### Carson City Health & Human Services

900 East Long Street • Carson City, Nevada 89706 • (775) 887-2190 • Hearing Impaired-Use 711

Clinical Services

(775) 887-2195

Fax: (775) 887-2192

Public Health Preparedness

(775) 887-2190

Fax: (775) 887-2248

Human Services

(775) 887-2110

Fax: (775) 887-2539

Disease Control &

Prevention

(775) 887-2190

Fax: (775) 887-2248

Chronic Disease Prevention

& Health Promotion

(775) 887-2190

Fax: (775) 887-2248



# CARSON CITY FIRE DEPARTMENT

*"Service with Pride. Commitment. Compassion"*

---

May 05, 2023

Hope Sullivan, Planning Director  
Carson City Planning Division  
Carson City Planning Commission  
108 E. Proctor St.  
Carson City, NV 89703

Dear Hope and Commission Members,

The fire department does not oppose population growth, residential, and commercial development in Carson City. As new buildings are built and population grows so will the demand for Emergency Medical, Fire, and Rescue services to our great community. Recently the city has taken great strides in addressing the anticipated increase in service demand by budgeting and approving the addition of our fourth fire station. The station is tentatively scheduled to break ground this winter. The station will be located on the north east side of town and will improve service delivery to that area and will improve our system reliability as a whole.

As Carson City grows the city should consider proactive solutions such as a mandatory fire sprinkler ordinance. Fire sprinklers have proven to reduce the impact of fires. The civilian death rate in homes with fire sprinklers was 89% lower than those without sprinklers. In building fires where the fire sprinkler system was activated, they were effective in controlling 96% of those fires. Not only do fire sprinklers save lives and reduce the destruction caused by fire they also reduce the impact and time commitment needed for firefighters to control hostile fires.

Sincerely,

Sean P Slamon  
Fire Chief

911 E. Musser St.  
Carson City, NV  
89701



Ken Furlong  
Sheriff

775-887-2500  
Fax: 775-887-2026

May 9, 2023

Ms. Hope Sullivan  
Community Development Director  
Carson City Planning Division

Ms. Sullivan,

The Sheriff's Office is providing input to the *“Growth Management of 2023 Residential Permit Allocations and AB 240 (2019) Growth Management Report to State Legislators”* as you've requested. The information below is provided based on approximately the last 10 years of data collected, except where otherwise noted.

**General Staffing Conditions:**

- Sheriff's Office Sworn Staff: 104 Sworn
- Patrol Division: 56 Deputies & 2 Civilian
  - 2 Deputies in whole or part grant funded
  - 5 Deputies assigned to Traffic Management
  - 6 Deputies assigned to schools
  - 2 Deputies and 1 civilian assigned to MOST
- Detention Division: 31 Deputies & 8 Civilians
  - 2 Deputies assigned to Court Services
  - 1 Deputy assigned to Medical
- Investigations Division: 14 Deputies & 4 Civilians
  - 2 Deputies assigned to state or federal task forces
  - 2 Deputy partially grant funded
  - 5 assigned to Special Enforcement/Gangs
- Communications Division: 20 Civilians
- Civil/Records Division: 7 Civilians

*Note: This list is not all inclusive of hourly employees.*

In response to department recommendations specific to your request, the below is provided:

1. *Does your department or agency have any extraordinary service capacity issues that would be negatively impacted by residential growth in 2023-2024? If so, identify the issues.*
  - a. **The capacity to house mental health inmates.**
  - b. **Labor shortages at the Public Safety Communications Center, currently 10% of positions are vacant with a historical effective rate of 70%. This issue is being addressed within the local budgetary allowances.**
2. *Do you recommend limiting the number of residential building permits (new construction) that will be made available for the 2023 calendar year to address these*

issues? If so, what limit, and how will this limit on residential growth help resolve your service capacity problem? **RESPONSE: None for the period identified.**

3. What are your recommendations to solve any service capacity issues identified above? **RESPONSE: None for the period identified.**

In response to Growth Management, Purpose, of the Boards findings and declarations, the individual unit breakdowns concerning the overall conditions for Public Safety, Law Enforcement, in the community are provided for consideration:

#### **Major Sheriff's Office Key Growth Indicators:**

- **Overall Crime Index:** 10-year trend, up to 2022, shows continued overall crime reduction
- **Emergency Response Times:** In greater than 91% of calls, Deputies report on scene within 5 minutes, 16 seconds, which is about 1 minute faster than 2021.
- **Traffic Management:** Rates were steady over the 10-year trend at 400 to 500 calls for service per year until approximately 2016 and peaking in 2019 at 650 per year (est. 30% increase in activity/labor). Bulk of accidents reports are non-injury accidents, which have increased steadily since 2014 from 200 to 500 annually.
  - Accident occurrence rates decreased in 2022, the highest rate of occurrence was July-Dec.
  - Fatality crashes increased in 2022 to 8, from 2021 which had 7, while the 10-year trend is 4 per year.
- **Sheriff Call Volume:** Call volume continues to be steady over the 10-year average.
- **Detention Bookings:** Total bookings in the Detention Center are holding steady at between 2500- 3300 per year over the 10-year average.

#### **Public Safety Communications Division:**

- Annual telephone call volume decreased in 2022 by approximately 3600 calls. **Staffing levels at the Communications Center has reached a critical level as the center is only staffed with 2-3 personnel per shift, which is easily overloaded during a critical incident call.**
- Sheriff 911 Incoming Calls are holding steady between 25,000 and 30,000 per year
- Fire 911 Incoming Calls are holding steady between 10,000 and 11,000 per year
- Computer Aided Dispatch labor distribution (law) holding steady at 105,000 to 125,000 per year. Significant increases are related to medical activity. These call volumes are all within the 10-year average, despite growth.

#### **Sheriff's Patrol Division:**

- **Calls for Service** have held steady over 10-year period at 15,000 to 20,000.
- **Traffic Accident** 2022 accident rates decreased to 567 compared to 580 in 2021.
- **School Activities** fell slightly in 2022 to 2,942 compared to 3,034 in 2021 but remained higher than the average of 2,250 to 2,500 calls for service annually in previous years. There is no indication of considerable student population growth in the near future, however, densely populated environments (Carson Middle School and Carson High School) continue to draw the heaviest volume of activities.
  - Note: School response calls for service at the school sites have held steady at 200-300 per month since inception of the School Resource Officer program in 2015.

### **Coroner's Office:**

- **Total Death Rate in Carson City:** The 10-year average for reported deaths in Carson City is about 850. We had a high of 1034 and a low of 751. 2020-2021 Pandemic impact resulted in a 38% increase in death rate during 2020-2021. In 2022, the death rate of 938 reflected a downward trend towards average.
- **Total Coroner/On-Scene Response Calls:** In 2022 Coroners responded to 225 calls, which was 124 less than the previous year. This downward trend was the result of the pandemic mitigation of screening coroner calls and limiting on-scene responses. This impact resulted in a 35% decrease in the number of On-Scene Responses conducted. Prior to the pandemic this scene response category held steady at 300-350 scene responses per year.
- **Suicides:** Self-inflicted deaths increased to 27 in 2021, which was a year into the Pandemic while there were only 18 in 2013. This was an increase of 50% increase in 2021. Suicides dipped to 16 in 2022, consistent with Pre-pandemic numbers.
- **Drug Overdoses:** This category increased from 8 in 2013 to 18 in 2022. This was an increase of 10 overdoses, or a 125% increase. In 2023 drug overdoses are currently on track to equal or slightly exceed 18.

### **Detention Division:**

- Total Bookings at the Detention Center decreased in 2022 by almost 11% to just over 2900, compared to almost 3300 the year previous.
- Average stay in jail is 140 days. 27% increase from previous year.
- Average Daily Population in 2022 (162 inmates) was up by 29% from the previous year. The *average daily population to Original Construction Capacity (224) is at 82%. Capacity levels greater than 80% of original construction should be considered to exceed critical health, safety, welfare capabilities and necessitate additional staffing considerations.*
- One of the causes for the increase in average stay is due to the NPRA system and criminal justice reforms. Many low-level offenders are being released, however, those who don't qualify for release stay in custody longer. Another cause is the majority of the mentally ill are waiting for bed space at forensic facilities. Some of these inmates are waiting 6 – 8 months for services.

### **Civil/Records Division:**

- No remarkable increases or decreases in overall workload indicators have been seen over the previous 10-year period.

**Conclusion:** Immediate and short-term abilities for the law enforcement sector to maintain quality services should be assessed as "good". While the Deputy to Population Ratio continues to be significantly below the statewide average, as well as the regional average, the department has done well at keeping up with the community demand. Concerns for long-term abilities rests in the more rural environments of the community, including the western Lake Tahoe (recreational) region, and the eastern housing growth areas along the Carson River front.

Additional long-term considerations must be given to specific groups that have an impact on growth & law enforcement services:

- Homeless & transient population growth
- Mental health & crisis intervention, and services growth

- Congested population affordable apartment style housing construction

All three of these conditions are determined to be having significant impacts on law enforcement and public safety services. Continued growth of these conditions would easily overwhelm current staffing postures, resource availabilities, and could negatively impact current growth projections.



## CARSON CITY SCHOOL DISTRICT

1402 W. King Street / P.O. Box 603, Carson City, Nevada 89702  
Telephone (775) 283-2100 / Fax (775) 283-2090

---

March 11, 2023

RE: SCHOOL DISTRICT ENROLLMENT TRENDS

Ms. Sullivan,

Carson City School District recently had a third-party, Davis Demographics, complete a student enrollment projection through the 2029-2030 school year. They consider where current students live and their grade level, historical trends of change in grade levels year-to-year, current housing developments and their timeline for completion, and estimates on how many students we would expect to yield from these new developments over time. Based on all of this information, they expect to see the number of students to decline over the next years. I will say that the decline is likely overstated somewhat because of the anomalous drop in enrollment in the 2020-2021 school year due to COVID being averaged in. However, we have seen that our elementary grade class sizes have been on a slight downward trend even prior to COVID.

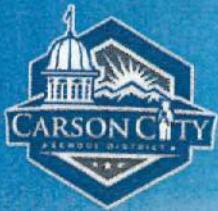
For example, Carson High School started the current year with about 2300 hundred students, and by the 2029-2030 school year that is expected less than 2000 students as these smaller classes filter through.

With that said, there continues to be growing interest at the federal and state level to expand pre-kindergarten opportunities, which may backfill some of that space at elementary schools if funding arrives. However, that would not change expectations for enrollment at the middle school and high school buildings.

As we have available bonding capacity, we may still look to improve or add facility space to enhance current educational programming opportunities for our students, but in the near term it looks unlikely that would be due to enrollment/capacity issues. Please let me know if you have any questions.

Sincerely,

Andrew Feuling, Superintendent  
Carson City School District  
[afeuling@carson.k12.nv.us](mailto:afeuling@carson.k12.nv.us)  
775-283-2014



# Carson City School District

Carson City, NV

## Student Population Forecast By Residence

**Fall 2022/2023**

**2023/24 – 2029/30 Forecasted Student Population**

Prepared by



May 3, 2023

**TABLE OF CONTENTS****Introduction and District Background****Executive Summary**

<b>Section One:</b>	<b>Methodology</b>	
	Sources of Data	1
	Seven-year Projection Methodology	4
	Projection Variables	5
	Applying Variables to Generate Projections	10
<b>Section Two:</b>	<b>Planned Residential Development</b>	
	Map: Future Development in District	13
	Planned Development List	14
<b>Section Three:</b>	<b>Attendance Matrices</b>	
	Attendance Matrices	15
	K-5 Attendance Matrix	16
	6-8 Attendance Matrix	17
<b>Section Four:</b>	<b>District Wide Student Projections</b>	
	District Student Projection Summary	19
	School Year 2022/23- School Year 2029/30	
<b>Section Five:</b>	<b>Attendance Area Projections by Residence</b>	
	K-5 Elementary Attendance Area Projections	
	<i>Map: Population Maps</i>	21
	Elementary School Projections by Residence	22
	6-8 Middle Attendance Area Projections	
	<i>Map: 6-8 Population Maps</i>	28
	Middle School Projections by Residence	30
	High School Attendance Area Projections	
	<i>Map: 9-12 Population Map</i>	32
	High School Projections by Residence	34
<b>Appendix A:</b>	<b>Study Area Projections</b>	
	<i>Map: Study Areas</i>	34
	Study Area Resident Projections	35
<b>Appendix B:</b>	<b>Staffing Projections</b>	131

## **INTRODUCTION AND DISTRICT BACKGROUND**

The Carson City School District has contracted with Davis Demographics & Planning (DDP) to update and analyze demographic data relevant to the District's facility planning efforts. The scope of contracted work includes: mapping of the District, geocoding/mapping current and historical student files that are usually representative of October's official head count, developing and researching pertinent demographic data, identifying future residential development plans and developing a seven year student population projection. The resulting data is developed at a level of detail that can assist the District in developing solutions for housing future student population such as evaluating future site requirements and attendance area changes.

The purpose of this report is to identify and inform the District of the trends occurring in the community; how these trends may affect future student population; and to assist in illustrating facility adjustments that may be necessary to accommodate the potential student population shifts. The District can then use this information to better plan for the need, location and timing of facility or boundary adjustments.

The **Sources of Data** section describes the various types of data, where they are collected and how each data item is used in the seven year student population projection model.

The **Seven Year Projection Methodology** section discusses, in detail, how the factors used in the study were calculated and why they were used. These factors include: the calculation of incoming kindergarten classes, additional students from new housing (referred to as student yield), the effects of student mobility, and a detailed review of planned residential development within the District.

The **Student Resident Projection Summary** sections is a review of the student resident projection results. Included in these sections are a district wide student population projection summary and a projected resident student population summary for each existing attendance area and study/planning area.

While reading this report, it is important to remember that this is a snapshot of current and potential student population based upon data gathered in fall 2022. Population demographics change, development plans change, funding opportunities can change, District priorities can change, and therefore, new projections and adjustments to any facilities plan will continue to be necessary in the future.

## EXECUTIVE SUMMARY

Carson City School District had experienced a decrease in student population annually in recent years. In the fall of 2020, the District's enrollment experienced a one-year decline of 4%, mainly attributed to the pandemic. Since then, the District has continued to decline, and the trend may persist through the end of the forecast timeframe. The District experienced a 1% loss in K-12 enrollment between the 2021/22 and the 2022/23 school years. When school-level enrollment was broken down, the elementary schools lost 1%, the middle schools dropped 5%, and the high schools grew by 1% of their previous year's enrollment.

Local birth data is collected and incorporated into forecasting future kindergarten students. The birth data shows a district-wide declining trend from 2017 to 2021. The anomaly being in 2018, where the district saw a growth of 6%. Therefore, Davis Demographics expects a similar decline in Kindergarten class sizes due to declining area births. Davis Demographics used a median factor for the last three years of the forecast (2027/28-2029/30). Furthermore, consider that future residential development may add additional kindergarten students to the forecast.

Student retention as they progress through the grades is the most impactful factor when calculating future student populations. Davis Demographics tracks student retention rates using Student Mobility Factors (Mobility) by elementary school attendance areas. Sixty-three percent (63%) of the total grade transitions (6 elementary schools multiplied by 12-grade transitions) are below 1.0. Low Mobility may be attributed to parents pulling their children out of public schools, searching for other educational options, or increasing outward migration from the District's boundary. Inherent to how Mobility is derived, any outlying year out of the four years of data included is tapered down by averaging the population fluctuations over three years of change.

Planned housing has an impact on future student populations. According to the information collected by Davis Demographics, it is estimated that 1,830 new housing units are planned to be built within the District in the next seven years. These units may generate an estimated 377 K-12 students over the seven-year timeframe. Single-family detached projects, totaling 884 units, make up 48% of the units planned to be built. It is estimated that single-family detached projects may generate 193 K-12 students. Over the forecast timeframe, 294 multi-family units are anticipated to yield 57 K-12 students, and 652 apartments are expected to yield 127 K-12 students. If new residential development is not approved over the forecast timeframe, school populations may remain flat or begin to decline over time. The District should closely monitor new housing growth and student yields to plan for possible trend shifts properly.

Students living entirely outside the District's boundaries are identified during the demographic study. Establishing the impact of in-District students (students living inside the boundaries) versus out-of-District students is essential. Over the last four years, out-of-District students have slowly declined year over year. Since 2021/22, out-of-district K-12 students have seen a net decrease of 81 students.

The following factors are considered to calculate the District's student population: birth, student mobility, and student yield factors combined with new housing units. These factors indicate an overall enrollment decrease over the next seven years. Assuming the proportion of special education and out-of-District students in the overall enrollment stays at its current ratio, total K-12 enrollment is forecasted to decrease by approximately 13% to about 6,268 students by the 2029/30 school year. Remember that all factors in the forecast are affected by social, health, and economic changes. See Section One for a review of the factors in this study.

***SECTION ONE – METHODOLOGY*****SOURCES OF DATA****Geographic Map Data**

Five (5) geographic data layers were created or updated for use in the seven year student population projections:

1. Street Centerline Database and parcels containing all known addresses for locating student data.
2. Study Areas
3. School locations
4. Students – Historical and Current
5. Planned Residential Development

**1) Street Centerline Data**

Davis Demographics has acquired a digital street centerline map of the District along with parcel data from the Carson City. The street database has associated attributes that contains, but are not limited to, the following fields: full street name, address range and street classification

The main function of the streets is in the geocoding process of the student data. Each student is geocoded to the streets by their given residence address. The geocoding process places a point on the map for every student in the exact location that student resides. This enables Davis Demographics to analyze the student data in a geographic manner and ascertain changes that are occurring with the student population within the District.

Another vital utilization of the digital street database is in the construction of study areas. Freeways, major streets and neighborhood streets are generally used as boundaries for the study areas.

**2) Study Areas**

Study areas are small geographic areas, similar to neighborhoods, and the building blocks of a school district. Study areas are geographically defined following logical boundaries of the neighborhood such as freeways, streets, railroad tracks, or rivers. Each study area is then coded with the elementary, middle and high school that the area is assigned to attend. By gathering information about the district at the study area level, Davis Demographics and the District can closely monitor growth and demographic trends in particular regions and identify the potential need for boundary adjustments or new facilities.

**3) Schools**

The District provided school facility location information to Davis Demographics for the purpose of mapping the District facilities. The school information includes school name, address, unique code and capacity.

**4) Student Data**

a. **Historical Student Data** - Historical enrollment is used to compare past student population growth and trends as well as the effects of mobility (move in, move out from existing housing) throughout the District. Davis Demographics utilized the three (3) previous years' (2019/20, 2020/21, and 2021/22) official October head count reports as historical data.

**b. Current Student Data** - A student data file for October 5, 2022 (received by computer data file from the School District) summarized by grade level and by study area is used as a base for student population projections. Existing students were categorized by study area through the geocoding process that locates each student within a particular area based upon their given address. The projections run each of the next seven years from school year 2023/24 through school year 2029/30.

**c. Student Accounting** - The Student Accounting Summary (Table 1) indicates the total student enrollment as of October 5, 2022 and the number of students used in the seven year resident student population projections. The projection model is based upon student residence and excludes students residing outside of the District's boundaries, students unable to be address matched and special education SDC students (special education students usually attend a school that services their particular need).

**Student Accounting Summary**  
**School Year 2022/23 Enrollment (10/05/2022)**

Total Students Provided by District File (October, 2022)	7,722
Students with Grade AD	-68
PK Students	-170
Charter/Carson Montessori Students	-292
Out of District Students	-158

**K-12 RESIDENT STUDENTS USED IN PROJECTIONS** 7,034

*Table 1- Student Accounting Summary*

#### **5) Planned Residential Development**

This data was obtained through discussions with the District and developers within the District boundary. Data includes development name, location, housing type, total number of units and projected move in dates (phasing). See **SECTION 2** for a detailed listing of the planned residential development. In the student population projection, Davis Demographics includes all approved and tentative projects in addition to any planned or proposed development that possibly will occur within the projection timeframe. The planned residential development information and phasing estimates is a snapshot of the District at the time of this study. All of the information may change and should be updated annually.

#### **Data Used for Variables**

Three sets of data were compiled and reviewed for use in the seven year student population projections by residence:

1. Births by Zip Code
2. Mobility Factors
3. Student Yield Factors

#### **1) Births by Zip Code Data**

Birth data for Carson City was obtained from the State of Nevada, Division of Public and Behavioral Health for the most recent year available (2021) and prior years. Past changes in historical birthrates are used to estimate future incoming kindergarten student population from existing housing.

**2) Mobility Factors**

Mobility refers to the increase/decrease in the migration of students within the District boundary (move-in/move-out of students from existing housing). Mobility, which is essentially a modified cohort, is applied as a percentage of increase/decrease among each grade for every year of the projections.

**3) Student Yield Factors (SYFs)**

Davis Demographics conducted a student yield factor study in order to apply proper yields to new residential housing.

The student yield factors, combined with planned residential development units are used to determine the number of students generated from new residential housing development projects. Student yield factor calculations will be discussed again in the **Seven Year Projection Methodology** section.

### **SEVEN YEAR PROJECTION METHODOLOGY**

The projection methodology used in this study combines historical student population counts, past and present demographic characteristics, and planned residential development to forecast future student population at the study area level. District-wide projections are summarized from the individual study area projections. These projections are based on where the students reside and where they should be attending school. We use the actual location of where the students reside, as opposed to their school of enrollment, in order to provide the most accurate estimate of where future school facilities should be located. The best way to plan for future student population shifts is to know where the next group of students will be residing. The following details the methodology used in preparing the student population projections by residence.

#### **Seven Year Projections**

Projections are calculated out seven years from the date of projection for several reasons. The planning horizon for any type of facility is typically no less than five years, often longer. Seven years are usually sufficient to adequately plan for a new facility. It is a short to mid-term solution for planning needs. Projections beyond seven years are based on speculation due to the lack of reliable information on birthrates, new home construction and economic conditions.

#### **Why Projections are Calculated by Residence**

Typically, school district projections are based on enrollment by school. However, this method is inadequate when used to locate future school facility needs, because the location of the students is not taken into consideration. A school's enrollment can fluctuate due to variables in the curriculum, program changes, school administration and open enrollment. These variables can skew the apparent need for new or additional facilities in a particular area of the District.

The method used by Davis Demographics is unique because it modifies a standard cohort projection with demographic factors and actual student location. **Davis Demographics bases its projections on the belief that school facility planning is more accurate when facilities are located where the greatest number of students reside.**

The best way to plan for facility requirements is to know where the next group of students will be residing. The following details the methodology used in preparing the student population projections.

### PROJECTION VARIABLES

Each year of the projections, 12<sup>th</sup> grade students graduate and continuing students' progress through to the next grade level. This normal progression of students is modified by the following factors:

#### 1) Incoming Kindergarten

Live birth data is reported to the State of Nevada, Division of Public and Behavioral Health by the resident city of the mother. Davis Demographics typically uses the birth data by zip code roughly correlating to the District boundary and applies the data accordingly. If multiple zip codes exist, a different birth factor can be applied to various areas of the District. The State of Nevada State of Nevada, Division of Public and Behavioral Health was able to gather births at the city level. Davis Demographics used births for Carson City instead of zip codes.

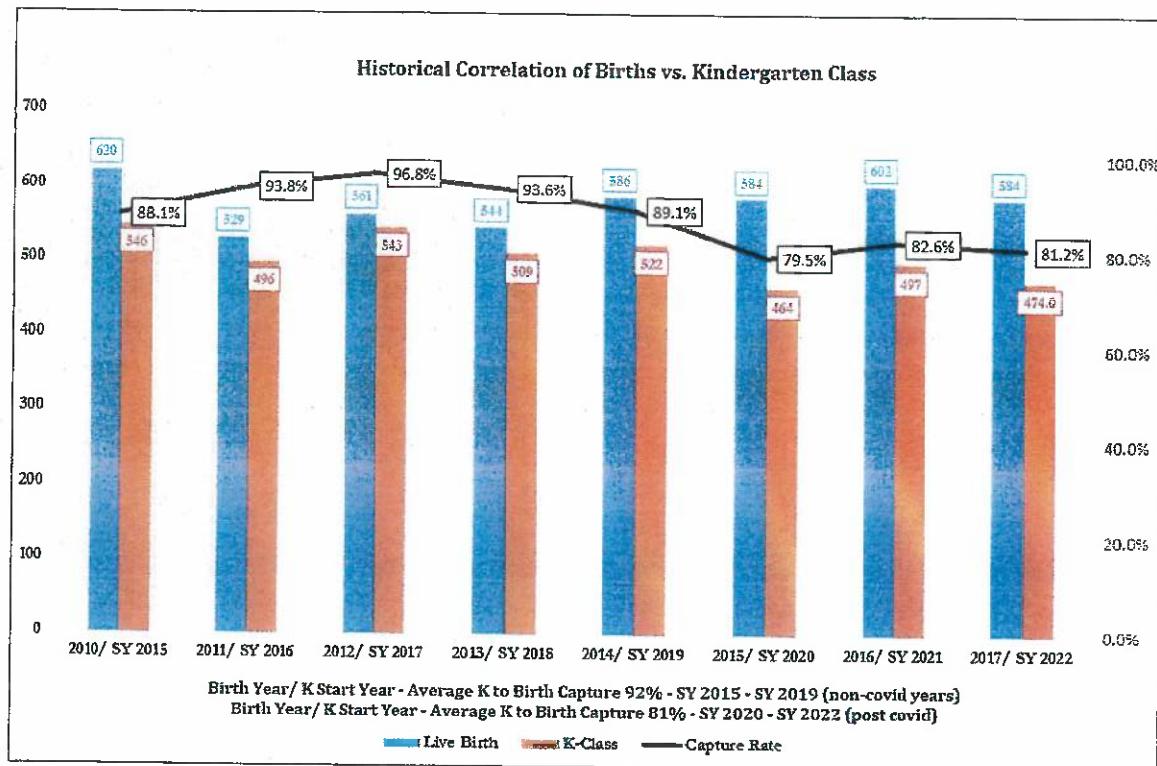
Incoming kindergarten classes, for existing homes, are estimated by comparing changes in past births in the area. Table 2 illustrates the total births for Carson City from 2008 to 2021. Davis Demographics assumes the current kindergarten class 2022/23 was born five years ago in 2017. Future incoming kindergarten classes are estimated by comparing the number births in 2017 to the number of births each year from 2018 – 2021. Davis Demographics compared the total births in 2017 to the total births in 2018, to determine a factor for next year's kindergarten class (fall 2023/24). Additionally 2017 births were compared to 2019 (fall 2024 K class) to 2020 (fall 2025 K class) and so forth.

Births by Zip Code				Birth Rate		
Birth Year	Kinder Year	Carson City	Total	% Change*	Birthrate Used in Forecast	School Year
2008	2013	684	684	117.1%		2013/14
2009	2014	672	672	115.1%		2014/15
2010	2015	620	620	106.2%		2015/16
2011	2016	529	529	90.6%		2016/17
2012	2017	561	561	96.1%		2017/18
2013	2018	544	544	93.2%		2018/19
2014	2019	586	586	100.3%		2019/20
2015	2020	584	584	100.0%		2020/21
2016	2021	602	602	103.1%		2021/22
2017	2022	584	584	Base Year		2022/23
2018	2023	617	617	105.7%	1.057	2023/24
2019	2024	575	575	98.5%	0.985	2024/25
2020	2025	529	529	90.6%	0.906	2025/26
2021	2026	544	544	93.2%	0.932	2026/27
2022	2027			94.1%	0.941	2027/28
2023	2028			94.1%	0.941	2028/29
2024	2029			94.1%	0.941	2029/30

\* % Change refers to the change in total births for each year compared to the base year.

Source: State of Nevada, Division of Public and Behavioral Health

Table 2 – Births by Zip code

Chart 1 – Births to K Capture

## 2) Student Mobility Factors

Student mobility factors further refine the seven year student population projections. Mobility refers to the increase/decrease in the migration of students within the District boundary (move-in/move-out of students from existing housing). Mobility, similar to a cohort, is applied as a percentage of increase/decrease to each grade for every year of the projections. Mobility factors indirectly measure the net movement of students/families into and out of the District, the movement of children between grades in public and private schools, as well as attrition between grades as students leave high school.

A net increase or decrease of zero students over time is represented by a factor of **1.000**. A net student loss is represented by a factor less than **1.000** and a net gain by a factor greater than **1.000** (see Table 3).

Example:

$$\begin{array}{r}
 100 \quad \text{Kindergarten students in fall 2022/23} \\
 \times \quad 1.05 \quad (\text{Bordewich Bay ES 1st grade mobility}) \\
 = \quad 105 \quad \text{anticipated 1st grade students in fall 2023/24}
 \end{array}$$

Having historical student data categorized by study area is extremely helpful in calculating accurate student mobility factors. Davis Demographics was able to utilize the last four year's (school years 2019/20, 2020/21, 2021/22 and 2022/23) student data. The 2019/20 student data was compared to 2020/21, 2020/21 to 2021/22, and 2021/22 to this year's student data at the study area level. Mobility factors for each grade grouping from grades K to 1 through grade 11 to 12 were all calculated to correspond with the elementary school attendance areas.

Attendance Area	K to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12
Bordewich Bray ES	1.05	0.96	0.93	0.95	0.98	1.02	0.99	1.00	1.02	1.00	0.97	0.93
Empire ES	0.94	0.96	0.97	1.05	0.98	1.03	1.01	0.98	1.00	0.95	0.95	0.97
Fremont ES	0.94	1.02	1.01	0.97	0.99	1.02	0.97	1.01	1.02	0.97	0.95	0.97
Fritsch ES	0.98	1.05	0.96	0.99	0.97	0.95	1.00	1.03	0.95	0.97	0.96	0.92
Mark Twain ES	1.00	0.96	0.98	0.96	0.99	1.00	0.94	0.99	1.03	1.01	0.97	0.91
Seeliger ES	1.07	1.00	0.97	0.92	1.10	1.00	0.95	1.02	1.00	0.96	0.97	0.92
K-12												
District Wide Average	1.00	0.99	0.97	0.97	1.00	1.00	0.98	1.01	1.00	0.98	0.96	0.94

Table 3—Mobility Factors

#### 4) Student Yield Factors

The student yield factors (SYF), when applied to planned residential development units, determine how many additional students will be generated from new construction within the District (see **Section Two** for details on planned residential development)

Two sets of data are required to calculate student yield factors: a current student file (provided by the District) and current housing unit data or tax assessor records. Each student record and tax assessor record is geocoded by their given address. The two database sets are then linked by common address. This allows Davis Demographics to associate each student with a specific housing unit. For the District, three general categories of housing units were analyzed; Single-Family Detached (SFD), Multi-Family Attached (MFA) and Apartments (APT).

Before the SYFs can be calculated from the current housing stock, the year of construction for each housing type must be determined. In general, new housing attracts young families with elementary school aged children. Over the next 12 to 15 years, the children grow older and pass through the grades. This cycle is then repeated throughout the life of the home. Identifying the year of construction and number of current resident students in recently built housing units assists in estimating the number of new students generated from future residential development.

In addition, other elements apart from the year of construction can be assessed. These elements include, but are not limited to, housing type, number of bedrooms, geographic location (study area), value of home, etc. Once a determining element is decided upon, simple calculations are performed to produce a Student Yield Factor. The total number of units for that housing type then divides the number of current students residing in each housing type. Student yield factors were calculated for Carson City SD in fall 2022. Due to the small sample size for MFA and APT units, a combined factor for the two types was used.

New Housing Units Built within Carson City SD									
Project/Area Description:	Type:	Units Built	# Students:				Student Yield Factors		
			K-6	7-8	9-12	K-12	K-6	7-8	9-12
Mills Landing	MFA	107	12	6	9	27	0.112	0.056	0.084
Arbor Villas Townhomes	MFA	54	7	2	2	11	0.130	0.037	0.037
									0.252
Carson Hill Apartments	APT	370	31	6	18	55	0.084	0.016	0.049
Gordon Park Apartments	APT	12	5	5	3	13	0.417	0.417	0.250
		543	55	19	32	106	0.101	0.035	0.059
									0.195

New Housing Units Built within Carson City SD									
Project/Area Description:	Type:	Units Built	# Students:				Student Yield Factors		
			K-6	7-8	9-12	K-12	K-6	7-8	9-12
Canyon Vista	SFD	18	0	0	0	0	0.000	0.000	0.000
Schulz Ranch	SFD	397	43	14	23	80	0.108	0.035	0.058
Jackson Village	SFD	26	5	1	2	8	0.192	0.038	0.077
Capital Village	SFD	49	10	2	7	19	0.204	0.041	0.143
		490	58	17	32	107	0.118	0.035	0.065
									0.218

Yield Factors Used in Projections		
Grade Range	SFD	MFA + APT
K-6	0.118	0.101
7-8	0.035	0.035
9-12	0.065	0.059
K-12	0.218	0.195

*Table 4 – Student Yield Factors*

### 5) Planned Residential Development

Closely related to the student yield factors are planned residential development units. Planned residential development data is collected to determine the number of new residential units that will be built over the time frame of the student population projections. The units built within the next seven years will have the appropriate SYF applied to it to determine the number of new students the planned residential development will yield.

This data was obtained through discussions with the District and developers within the District boundaries. Data includes development name, location, housing type, total number of units and estimated move in dates (phasing). See **SECTION 2** for a detailed listing of the planned residential development.

In the student population projection by residence, Davis Demographics includes all approved and tentative tract maps in addition to any planned or proposed development that possibly will occur within the projection timeframe. The planned residential development information and phasing estimates is a snapshot of the District at the time of this study. All of the information may change and should be updated annually.

**APPLYING THE VARIABLES TO GENERATE THE PROJECTIONS**

The following paragraphs summarize how Davis Demographics uses the factors to determine the student population projections. Remember that these projections are based on residence.

Carson City School District has been divided into 191 study areas. Every study area is coded with the school code of the elementary, middle and high schools attendance area it falls within. The residential projections are calculated at the study area level. This means that Davis Demographics conducts 191 individual projections that are based upon the number of students residing in each study area.

The first step in developing the projections is to tally the number of students that live in each study area by each grade (Kindergarten through 12<sup>th</sup> grade). The current student base (school year 2022/23) is then passed onto the next year's grade (2022/23's K become 2023/24's 1<sup>st</sup> graders, 2022/23's 1<sup>st</sup> graders become 2023/24's 2<sup>nd</sup> graders, and so on). After the natural progression of students through the grades is applied, then birth factors are multiplied to the current kindergarten class to generate a base for the following year's kindergarten class.

Next, a mobility factor is applied to all grades. Again, these factors take into account the natural in/out migration of students throughout the District. The mobility factor is applied to each student in every grade (K-12). A unique mobility factor is applied to each elementary school attendance area determined by the mobility factor study.

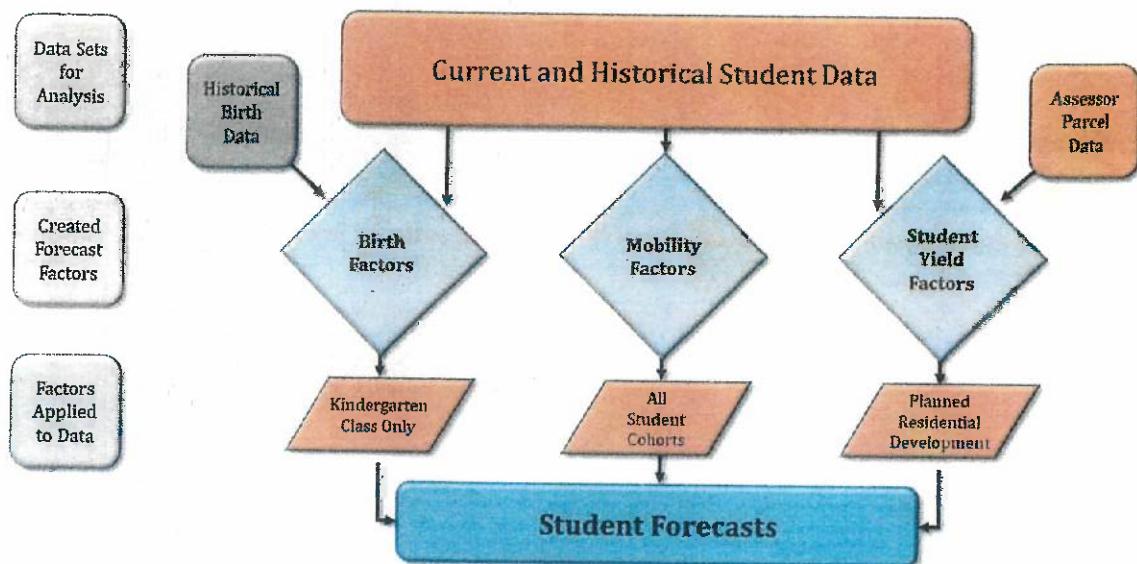
The last essential layer applied to the projections deals with additional students from planned residential development. This is a simple calculation, again conducted at the study area level, where the estimated number of new housing units for a particular year is multiplied by the appropriate student yield factor. For example, if 100 single family detached (SFD) units are to be built in a specific study area in a given year, then you would multiply this number (100) by the SFD K-6 student yield factor (.118) and the resulting number (11.8) is divided evenly among the seven K-6 grades.

To finish generating the projections by residence, the same process is conducted for each of the 191 study areas. Once the projections have been developed at the study area level, then it is simple addition to determine projections for each of the District's attendance areas or for a district-wide summary. For example, the residential projections for the Empire Elementary School attendance area are simply the summary of all of the study areas that make up this specific attendance area (see Section Five for the projections of each elementary, middle and high school attendance areas).

The District Summary for the projections (Section Four) is a total summary of all 191 study areas. The projections exclude 1) all of the students that attend a District school but live completely outside of the District's boundaries, 2) students unable to be geocoded (located) and, 3) Carson Montessori Charter students. These students are added back into the projections on a straight-line basis. (please see the Attendance Matrices in Section Three for a breakdown of the out-of-district and unmatched students by school).

Current and historical students, geographic data and non-geographic data are used to calculate the factors used in the student population projections by residence. These factors are applied using SchoolSite and projections are calculated for each study area for each grade.

## Projections by Residence Flowchart



***SECTION TWO – PLANNED RESIDENTIAL DEVELOPMENT***

This data was obtained through discussions with the major developers within the District boundaries and District staff. A database and map of the planned residential development was created, including, when available, project name, location, housing type, total number of units and estimated move in dates (phasing schedule). Projected phasing is based upon occupancy of the unit and is used to help time the arrival of students from these new developments.

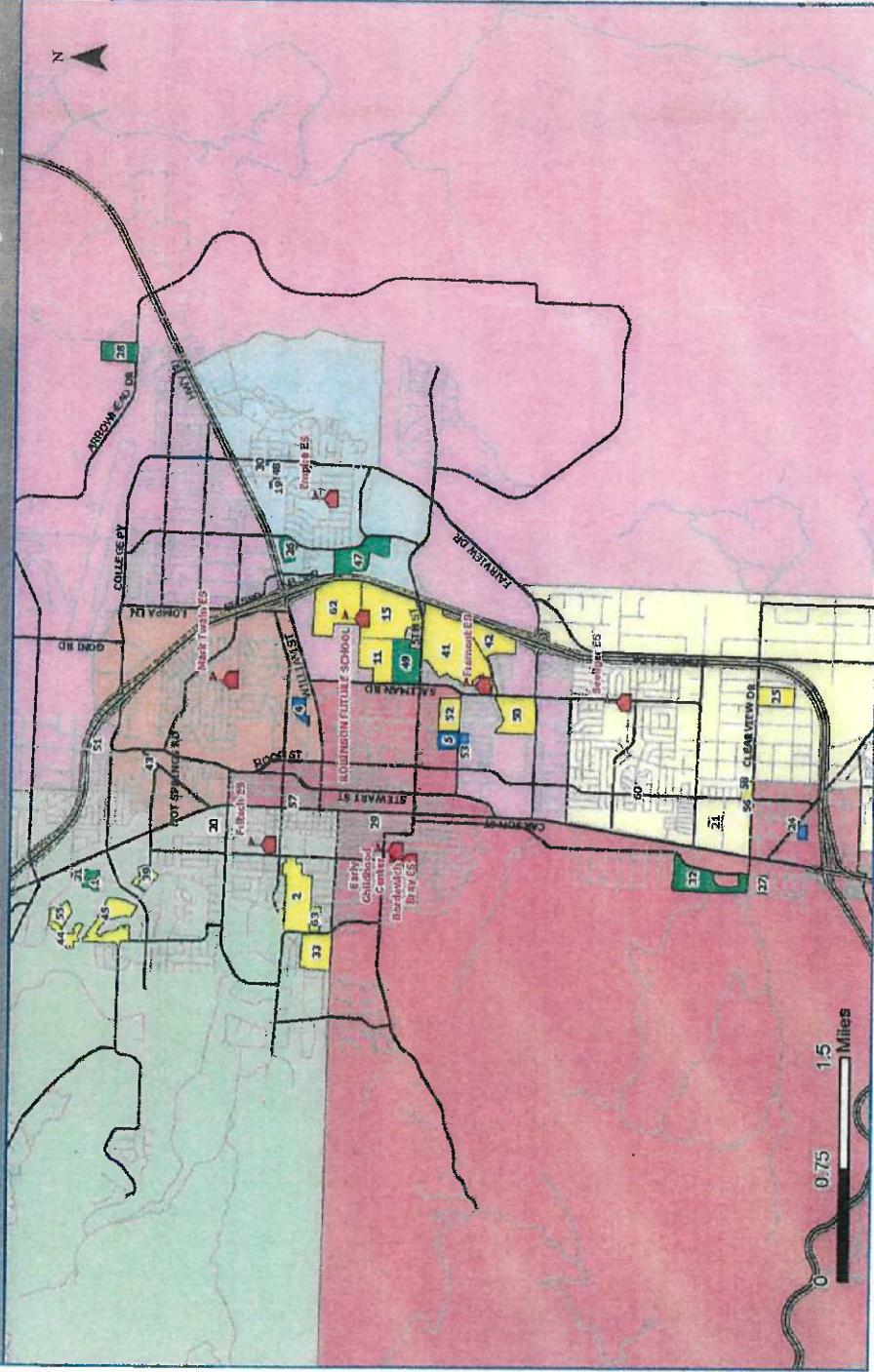
In the student population projection by residence, Davis Demographics includes all approved and tentative tract maps in addition to any planned or proposed development that possibly will occur within the seven year projection timeframe. The planned residential development information and phasing estimates is a snapshot of the District at the time of this study. All of the information may change and should be updated annually.



## Residential Development

Fall 2022 / 23

**Development Type:**  
Apartment      Multi-Family Attached      Single Family Detached





### **SECTION THREE – ATTENDANCE MATRICES**

Two Attendance Matrices have been included to provide a better understanding of where students reside and where they attend school. Remember, Davis Demographics projections are based upon where the students reside, **not** the students school of enrollment. This method allows Davis Demographics to provide the most accurate forecast of where shifts in student population may occur, assist with attendance boundary changes if necessary, as well as determining the best location for future facilities or school repurpose/closure. Therefore, since the projections are based upon where the students reside, the figures we use as a base for each school's resident projection may be slightly higher or lower than the actual reported enrollment for each school. The best way to plan for future facilities is to know where the next group of students will be coming from, not necessarily which school they are currently attending

Attendance matrices act as a check and balance for student accounting. Illustrating where the students reside (in what School of Residence) based upon their geocoded address and which school they attend (School of Attendance) based upon District provided student data. It is essential to show how the students used in the projections match up to the District's records of enrollment for each school. Furthermore, the impact of open-enrollment policies and intra-district transfer patterns can be determined by comparing school of residence data to the school of attendance data.

#### **READING THE MATRIX**

Rows in the matrix represent the attendance area in which students reside and columns represent the schools they are attending. Starting with the K-5 Elementary School Attendance Matrix, let's begin with Bordewich Bray as an example. Following down the first column with the Bordewich Bray ES heading, there are 475 K-5 grade students attending Bordewich Bray and reside in the Bordewich Bray attendance area. Continuing downward, 12 students attend Bordewich Bray that reside in the Empire attendance area. Next it shows that 13 students attend Bordewich Bray and reside in the Fremont attendance area, and so on.

The row Out of District refers to students living completely outside of the Carson City School District, but attending one of the District's schools. There are 10 out of district students attending Bordewich Bray. PK refers to PK students enrolled in Bordewich Bray, there are 32 PK students attending Bordewich Bray. Total Enrollment is the total number of students attending a school regardless of where they reside, and reflects the District's enrollment counts for each school. There are 578 students (PK-5) attending Bordewich Bray as of October 2022.

The next step is to read across the matrix, beginning with the Bordewich Bray attendance area row. We know 475 represents the total number of K-5 grade students residing and attending Bordewich Bray. The next column, Empire ES, refers to the number of K-5 grade students residing in the Bordewich Bray attendance area, but attend Empire ES. Currently, there are 3 students residing in the Bordewich Bray attendance area but are attending Empire (on permit).

The Count of Students Living in Attendance Area column is the total number of students living in that particular attendance area. It is the base number used in the resident student projections (minus Montessori Charter). In the Bordewich Bray example, there are 543 K-5 students residing in the Bordewich Bray attendance area. % of Students Attending School of Residence is the percentage of students that live in the attendance area and attended their resident school. Bordewich Bray has 87% of their resident K-5 students attending their resident school.

## K-5 ELEMENTARY MATRIX

## SCHOOL OF ENROLLMENT (K-5)

Attendance Area	Count of Students Living in Attendance Area	SCHOOL OF ENROLLMENT (K-5)									
		Empire ES	Frederick Bracy ES	Frederick ES	Mark Twain ES	Seeliger ES	Early Childhood Center	Carson Montessori	Pioneer Academy	# of Students Attending School of Residence	% of Students Attending School of Residence
Bordewich Bray ES	543	475	3	17	19	8	3	0	18	0	475
Empire ES	478	12	403	16	2	8	4	0	32	1	403
Frement ES	548	13	9	459	3	11	0	0	51	2	459
Fritsch ES	504	16	1	13	431	7	3	0	33	0	431
Mark Twain ES	548	12	0	14	5	475	5	0	36	1	475
Seeliger ES	562	8	1	18	3	1	503	0	28	0	503
Total Resident Students	3,183	536	417	537	463	510	518	0	198	4	2,746
Out of District Students	118	10	8	4	3	17	6	0	70	0	
PK Students	170	32	27	37	4	31	2	37	0	0	
Total Enrollment	3,471	578	452	578	470	558	526	37	268	4	86%
# Of Transfers In	283	71	22	82	35	52	21				
% Of Transfers In	8%	12%	5%	14%	7%	9%	4%				

## Note:

\*Out of District: Students living outside of the K-5 Carson district boundary  
 Table based on students representing October 2022

## 6-8 ATTENDANCE MATRIX

SCHOOL OF RESIDENCE (6-8)

## SCHOOL OF ENROLLMENT (6-8)

Attendance Area	Count of Students Living in Attendance Area	Carson MS	Eagle Valley MS	Carson Montessori Charter	Pioneer Academy	# of Students Attending School of Residence	% of Students Attending School of Residence
Carson MS	865	816	30	11	8	816	94%
Eagle Valley MS	809	53	736	10	10	736	91%
<b>Total Resident Students</b>	<b>1,674</b>	<b>869</b>	<b>766</b>	<b>21</b>	<b>18</b>	<b>1,552</b>	<b>93%</b>
Out of District Students	36	17	16	3	0		
<b>Total Enrollment</b>	<b>1,692</b>	<b>886</b>	<b>782</b>	<b>24</b>	<b>18</b>		
<b># Of Transfers In</b>	<b>116</b>	<b>70</b>	<b>46</b>				
<b>% Of Transfers In</b>	<b>7%</b>	<b>8%</b>	<b>6%</b>				

## Note:

\*Out of District: Students living outside of the 6-8 Carson district boundary

Table based on students representing October 2022

***SECTION FOUR – DISTRICT WIDE STUDENT POPULATION PROJECTION***

The student population is projected out seven years for each of the study areas, attendance areas and for the entire Carson City School District. The District Wide Summary enables the District to see a broad overview of future student population and what impact these shifts may have on existing and future facilities. Each attendance area is summarized to give a more local view of population changes and identify variances in the district. The study area listings enable the District to monitor student population growth or decline in neighborhood areas within the District and can be used to estimate the effect of boundary changes in the event of such need.

Together, these projection summaries, present the means for identifying the timing of future population shifts and overall facility adjustments needed to accommodate these shifts. At any time, study areas and their projected resident students can be shifted between schools to assist in balancing enrollment, school consolidation, among various other analyses.

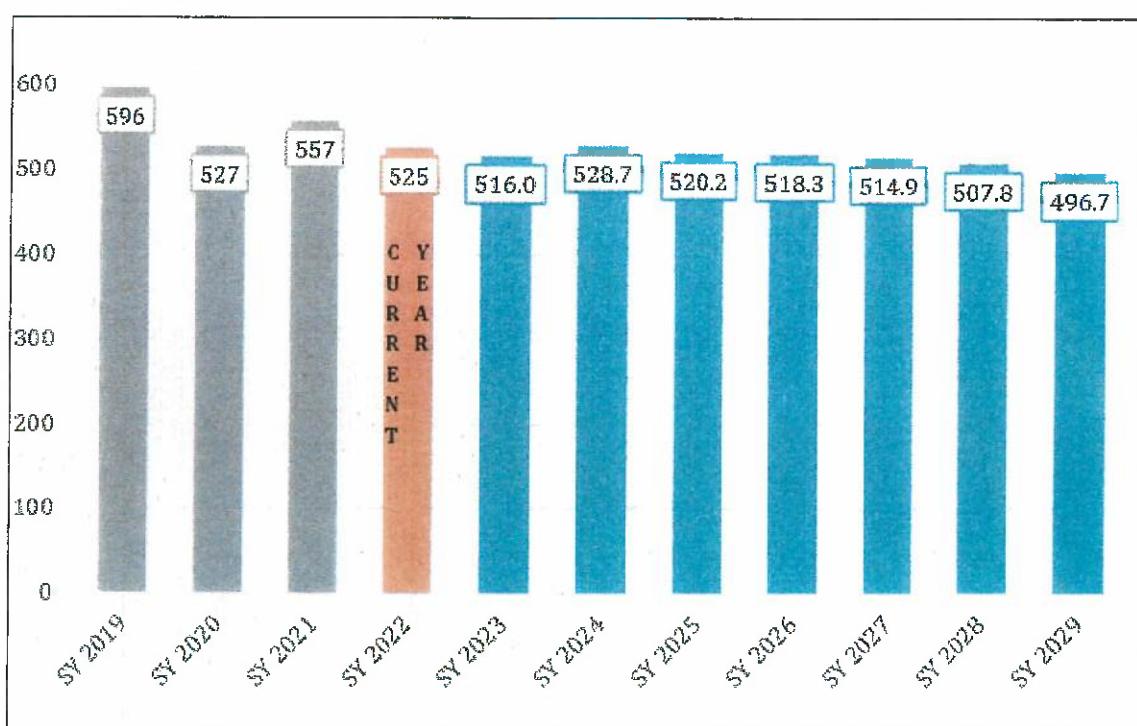
Historic Resident Counts				Current		Forecasted Resident Counts					
Grade	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
K	522	464	497	474	505.9	477.0	443.0	456.6	461.6	461.3	461.9
1	523	481	495	507	480.2	514.7	484.9	448.2	460.2	463.4	463.1
2	536	486	501	500	507.3	483.1	516.6	484.8	446.8	456.8	460.1
3	518	515	469	485	489.7	499.0	474.6	504.9	472.5	434.0	443.7
4	547	479	529	485	475.8	482.7	490.8	463.4	491.1	458.1	420.8
5	570	540	497	534	490.7	484.0	490.6	496.6	468.4	494.5	461.2
6	601	572	550	530	541.2	500.6	493.0	496.2	500.6	470.9	497.0
7	636	599	583	542	522.6	537.0	495.7	486.6	487.5	489.2	459.6
8	635	643	607	581	550.4	534.1	547.2	503.1	492.2	491.5	493.0
9	620	635	644	625	588.0	558.9	542.8	554.0	508.6	495.1	493.6
10	585	601	635	621	615.2	581.5	552.2	534.8	543.9	497.7	484.2
11	577	568	567	620	601.9	598.9	566.1	535.4	517.3	523.9	479.4
12	566	559	521	530	585.2	570.9	567.9	534.1	504.0	485.3	492.2
Resident Student Totals by Grade Configuration											
K-5	3,216	2,965	3,008	2,985	2,950	2,941	2,901	2,855	2,801	2,768	2,711
6-8	1,872	1,814	1,740	1,653	1,614	1,572	1,536	1,486	1,480	1,452	1,450
9-12	2,348	2,363	2,367	2,396	2,390	2,310	2,229	2,158	2,074	2,002	1,949
K-12	7,436	7,142	7,115	7,034	6,954.1	6,822.4	6,665.4	6,498.7	6,354.7	6,221.7	6,109.8
Out-of-District Students											
K-5	71	87	66	48	48.0	48.0	48.0	48.0	48.0	48.0	48.0
6-8	46	61	43	33	33.0	33.0	33.0	33.0	33.0	33.0	33.0
9-12	107	91	70	77	77.0	77.0	77.0	77.0	77.0	77.0	77.0
K-12	224	239	179	158	158.0	158.0	158.0	158.0	158.0	158.0	158.0
Total Students*											
K-5	3,287	3,052	3,074	3,033	2,997.6	2,988.5	2,948.5	2,902.5	2,848.6	2,816.1	2,758.8
6-8	1,918	1,875	1,783	1,686	1,647.2	1,604.7	1,568.9	1,518.9	1,513.3	1,484.6	1,482.6
9-12	2,455	2,454	2,437	2,473	2,467.3	2,387.2	2,306.0	2,235.3	2,150.8	2,079.0	2,026.4
K-12	7,660	7,381	7,294	7,192	7,112.1	6,980.4	6,823.4	6,656.7	6,512.7	6,379.7	6,267.8
Annual Change											
K-5 Difference	-235	22	-41	-35.4	-9.1	-40.0	-46.0	-53.9	-32.5	-57.3	
6-8 Difference	-43	-92	-97	-38.8	-42.5	-35.8	-50.0	-5.6	-28.7	-2.0	
9-12 Difference	-1	-17	36	-5.7	-80.1	-81.2	-70.7	-84.5	-71.8	-52.6	
K-12 Difference	-279	-87	-102	-79.9	-131.7	-157.0	-166.7	-144.0	-133.0	-111.9	
Notes											
Forecast based on student data as of 10/5/2022.											
*The above forecast does not include grade 15 (68), grade PK (170), and Carson Montessori (292) students (155) Pre-K students not included in the above numbers.											



## Elementary School Projections by Residence

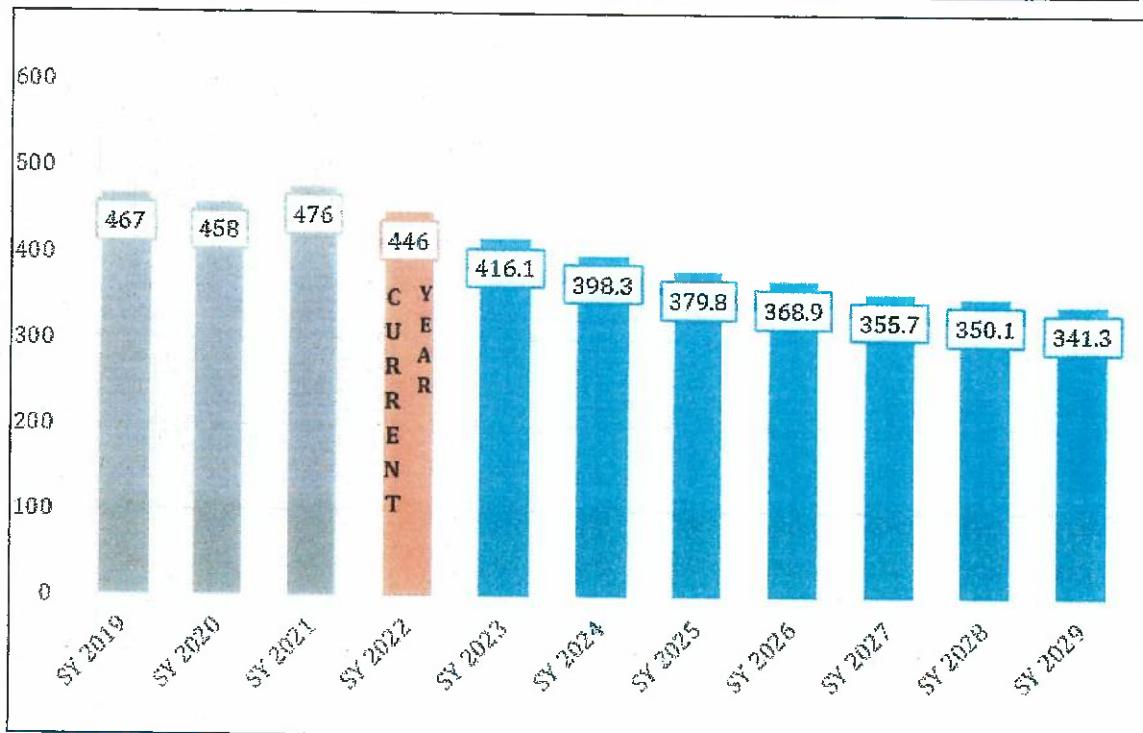
Bordewich Bray ES											
Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
K	97	69	80	88	94.4	89.9	83.5	85.1	85.8	85.8	85.8
1	102	89	89	87	93.8	101.7	96.1	87.8	89.4	90.1	90.1
2	106	88	97	81	84.8	92.4	99.2	92.4	84.3	85.8	86.5
3	102	94	91	91	76.6	81.2	87.5	92.4	86.0	78.4	79.8
4	97	93	104	79	87.7	75.1	78.7	83.3	87.8	81.7	74.5
5	92	94	96	99	78.7	88.4	75.2	77.3	81.6	86.0	80.0
Actual Resident Students					Forecasted Resident Students						
Total PK-5	596	527	557	525	516.0	528.7	520.2	518.3	514.9	507.8	496.7

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-69.0	30.0	-32.0	-9.0	12.7	-8.5	-1.9	-3.4	-7.1	-11.1
	-11.6%	5.7%	-5.7%	-1.7%	2.5%	-1.6%	-0.4%	-0.7%	-1.4%	-2.2%



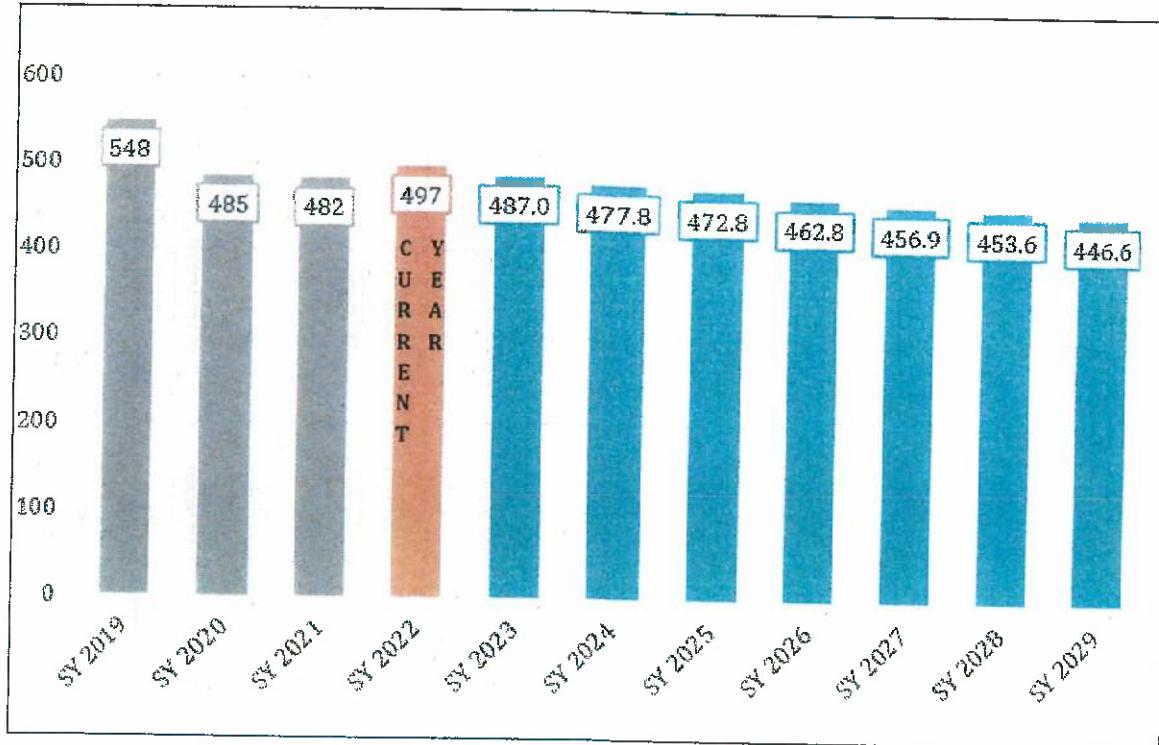
Grade	Empire ES										
	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
K	83	78	84	62	65.5	61.6	57.9	60.3	61.2	60.7	60.7
1	80	82	78	73	58.3	62.1	59.3	55.8	57.6	57.5	57.1
2	75	77	82	70	70.1	56.5	61.0	58.3	54.5	55.3	55.2
3	66	79	78	75	67.9	68.5	56.2	60.6	57.5	52.9	53.6
4	78	68	87	77	78.8	71.9	73.5	60.5	64.6	60.4	55.5
5	85	74	67	89	75.5	77.7	71.9	73.4	60.3	63.3	59.2
Actual Resident Students					Forecasted Resident Students						
Total K-5	467	458	476	446	416.1	398.3	379.8	368.9	355.7	350.1	341.3

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-9.0	18.0	-30.0	-29.9	-17.8	-18.5	-10.9	-13.2	-5.6	-8.8
	-1.9%	3.9%	-6.3%	-6.7%	-4.3%	-4.6%	-2.9%	-3.6%	-1.6%	-2.5%



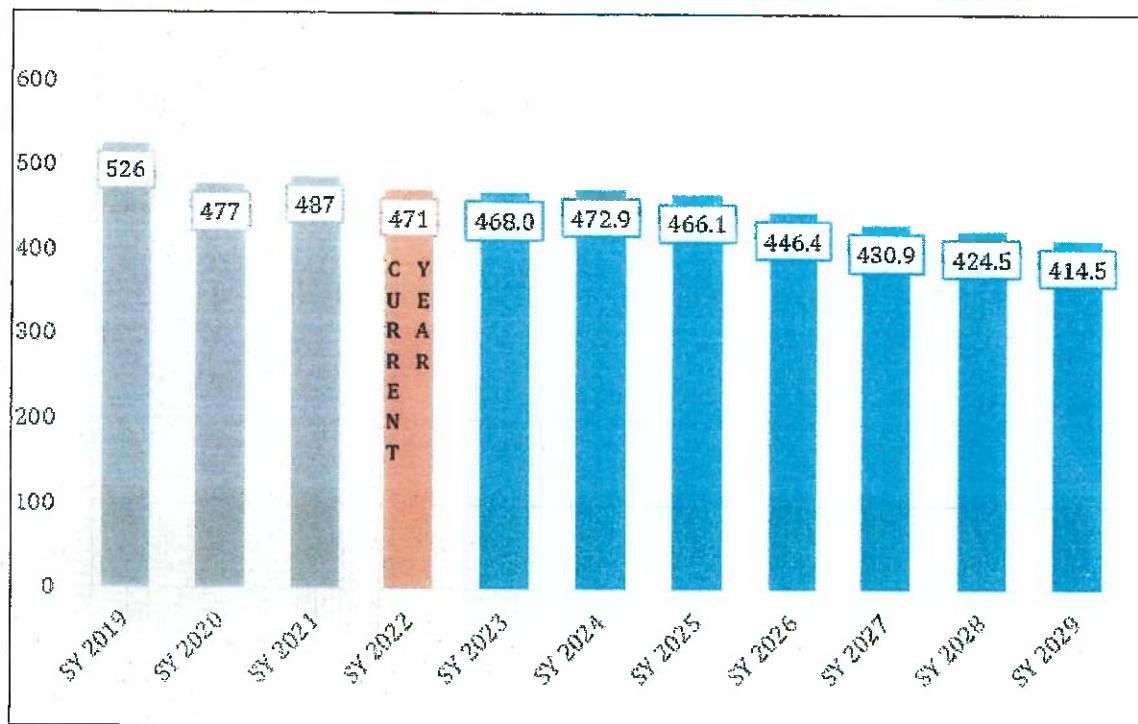
Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028
	K	88	75	78	73	78.4	75.7	71.2	74.0	74.9	75.3
1	86	76	76	73	69.8	76.6	73.7	68.9	70.7	71.3	71.7
2	94	83	78	85	75.7	74.4	80.9	77.3	71.5	73.1	73.8
3	80	91	88	83	87.1	79.6	77.8	83.9	79.3	73.3	74.9
4	95	71	85	94	81.7	87.5	79.9	77.5	82.5	77.9	72.1
5	105	89	77	89	94.3	84.0	89.3	81.2	78.0	82.7	78.2
Actual Resident Students					Forecasted Resident Students						
Total K-5	548	485	482	497	487.0	477.8	472.8	462.8	456.9	453.6	446.6

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-63.0	-3.0	15.0	-10.0	-9.2	-5.0	-10.0	-5.9	-3.3	-7.0
	-11.5%	-0.6%	3.1%	-2.0%	-1.9%	-1.0%	-2.1%	-1.3%	-0.7%	-1.5%



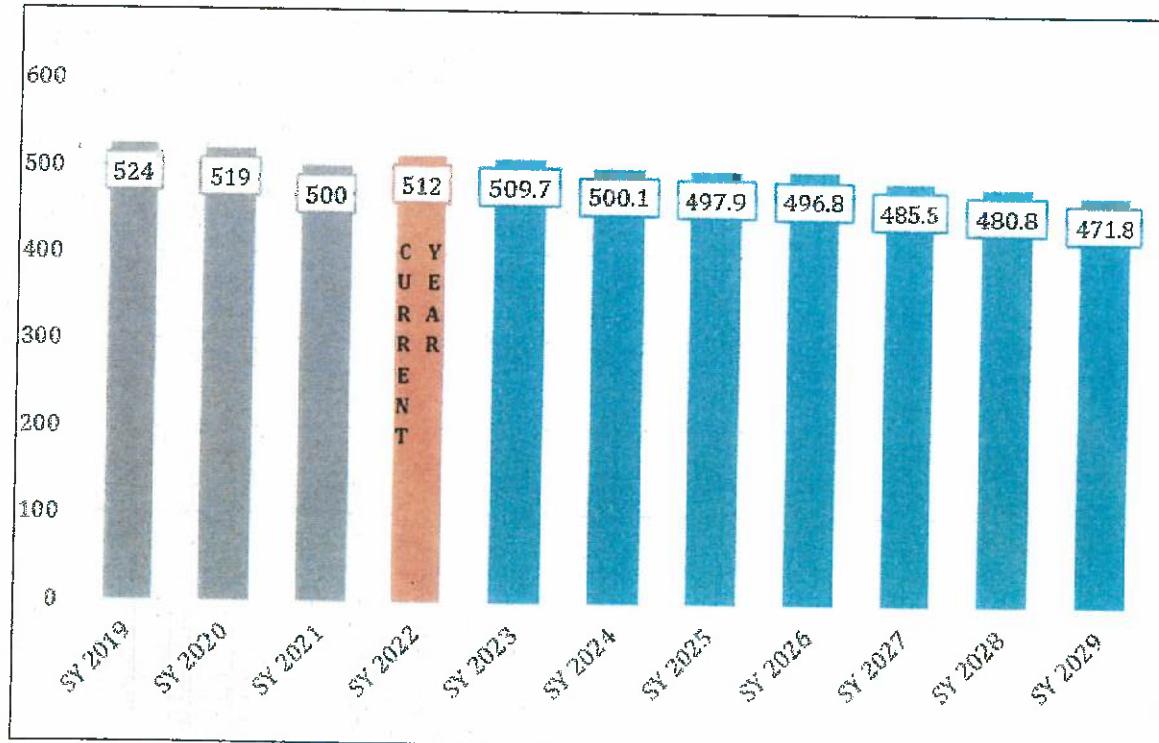
Fritsch ES											
Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
K	92	77	80	71	76.2	71.7	66.6	68.7	69.7	69.4	69.4
1	67	75	86	83	70.7	75.8	71.3	66.0	68.0	68.3	68.0
2	87	62	84	92	88.3	75.5	80.7	75.7	70.0	71.4	71.7
3	85	84	68	75	89.4	85.9	73.4	78.2	73.3	67.2	68.5
4	99	80	88	69	75.4	89.7	86.1	73.5	78.0	72.5	66.5
5	96	99	81	81	68.0	74.3	88.0	84.3	71.9	75.7	70.4
Actual Resident Students				Forecasted Resident Students							
Total K-5	526	477	487	471	468.0	472.9	466.1	446.4	430.9	424.5	414.5

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-49.0	10.0	-16.0	-3.0	4.9	-6.8	-19.7	-15.5	-6.4	-10.0
	-9.3%	2.1%	-3.3%	-0.6%	1.0%	-1.4%	-4.2%	-3.5%	-1.5%	-2.4%



Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028
	79	87	91		88	93.0	86.7	79.7	82.0	82.8	82.8
K	79	87	91	88	93.0	86.7	79.7	82.0	82.8	82.8	82.8
1	103	78	81	95	88.0	93.0	86.7	79.7	82.0	82.8	82.8
2	89	100	75	79	91.2	84.5	89.3	83.2	76.5	78.7	79.5
3	86	88	90	76	77.4	89.4	82.8	87.5	81.5	75.0	77.2
4	84	80	87	88	73.0	74.3	85.8	79.5	84.0	78.3	72.0
5	83	86	76	86	87.1	72.2	73.6	84.9	78.7	83.2	77.5
Actual Resident Students					Forecasted Resident Students						
Total K-5	524	519	500	512	509.7	500.1	497.9	496.8	485.5	480.8	471.8

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-5.0	-19.0	12.0	-2.3	-9.6	-2.2	-1.1	-11.3	-4.7	-9.0
	-1.0%	-3.7%	2.4%	-0.4%	-1.9%	-0.4%	-0.2%	-2.3%	-1.0%	-1.9%



Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
	K	83	78	84	92	98.4	91.4	84.1	86.5	87.3	87.3
1	85	81	85	96	99.6	105.5	97.8	89.9	92.5	93.4	93.4
2	85	76	85	93	97.1	99.8	105.5	97.8	89.9	92.5	93.4
3	99	79	74	85	91.3	94.4	96.8	102.3	94.9	87.2	89.7
4	94	87	78	78	79.2	84.2	86.8	89.1	94.1	87.3	80.3
5	109	98	100	90	87.0	87.4	92.6	95.5	98.0	103.5	96.0
Actual Resident Students					Forecasted Resident Students						
Total K-5	555	499	506	534	552.6	562.7	563.6	561.1	556.7	551.2	540.1

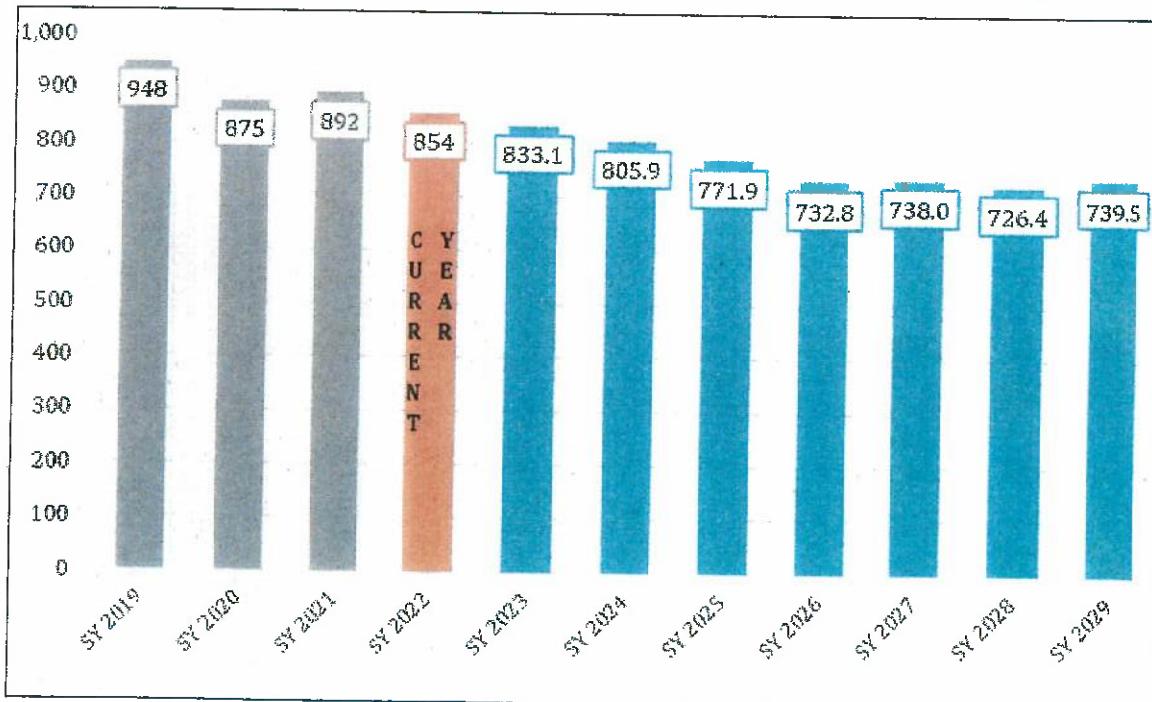
Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-56.0	7.0	28.0	18.6	10.1	0.9	-2.5	-4.4	-5.5	-11.1
	-10.1%	1.4%	5.5%	3.5%	1.8%	0.2%	-0.4%	-0.8%	-1.0%	-2.0%



## Middle School Projections by Residence

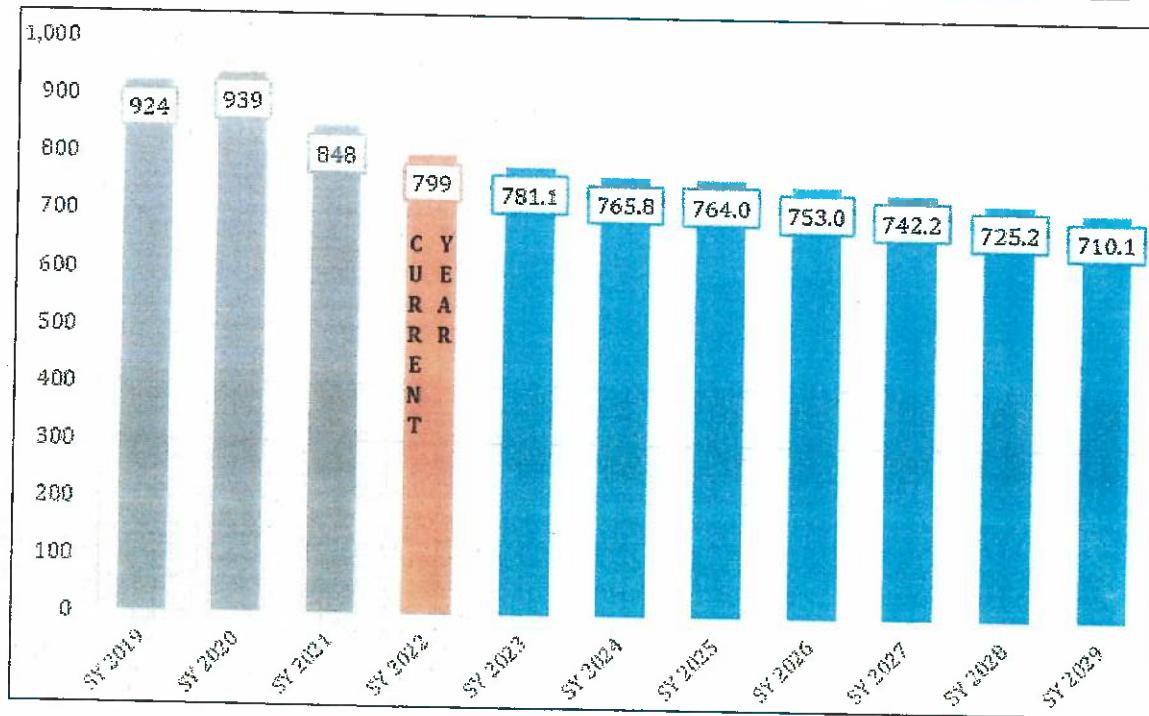
Grade	Carson MS										
	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
K	278	238	262	256	273.4	257.3	237.9	244.1	246.7	246.4	246.4
1	287	253	257	276	262.6	281.1	263.6	242.1	248.3	250.3	250.0
2	292	263	267	256	276.0	262.6	279.8	260.9	239.6	245.1	247.0
3	278	276	261	256	247.8	268.1	253.7	268.5	250.3	229.3	234.6
4	289	257	284	249	249.1	243.0	260.9	245.1	259.2	241.1	220.9
5	288	291	261	273	249.1	249.8	241.5	258.6	242.5	255.9	238.0
6	295	283	290	282	273.6	250.8	250.2	239.2	256.4	240.5	253.7
7	309	293	291	276	278.1	270.8	246.4	244.8	234.3	249.6	234.2
8	344	299	311	296	281.4	284.3	275.3	248.8	247.3	236.3	251.6
Actual Resident Students				Forecasted Resident Students							
<b>Total 6-8</b>	<b>948</b>	<b>875</b>	<b>892</b>	<b>854</b>	<b>833.1</b>	<b>805.9</b>	<b>771.9</b>	<b>732.8</b>	<b>738.0</b>	<b>726.4</b>	<b>739.5</b>

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	-73.0	17.0	-38.0	-20.9	-27.2	-34.0	-39.1	5.2	-11.6	13.1
	-7.7%	1.9%	-4.3%	-2.4%	-3.3%	-4.2%	-5.1%	0.7%	-1.6%	1.8%



Eagle Valley MS											
Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029
K	244	226	235	218	232.5	219.7	205.1	212.5	214.9	214.9	215.4
1	236	228	238	231	217.7	233.6	221.3	206.1	211.8	213.1	213.1
2	244	223	234	244	231.3	220.4	236.8	223.9	207.2	211.7	213.0
3	240	239	228	229	241.9	230.9	220.9	236.4	222.2	204.6	209.1
4	258	222	245	236	226.7	239.7	229.9	218.3	231.9	217.0	199.9
5	282	249	236	261	241.5	234.2	249.1	238.0	225.9	238.6	223.3
6	306	289	260	248	267.6	249.8	242.8	256.9	244.2	230.4	243.3
7	327	306	292	266	244.5	266.2	249.3	241.8	253.2	239.6	225.4
8	291	344	296	285	269.0	249.8	271.9	254.3	244.8	255.2	241.4
Actual Resident Students					Forecasted Resident Students						
Total 6-8	924	939	848	799	781.1	765.8	764.0	753.0	742.2	725.2	710.1

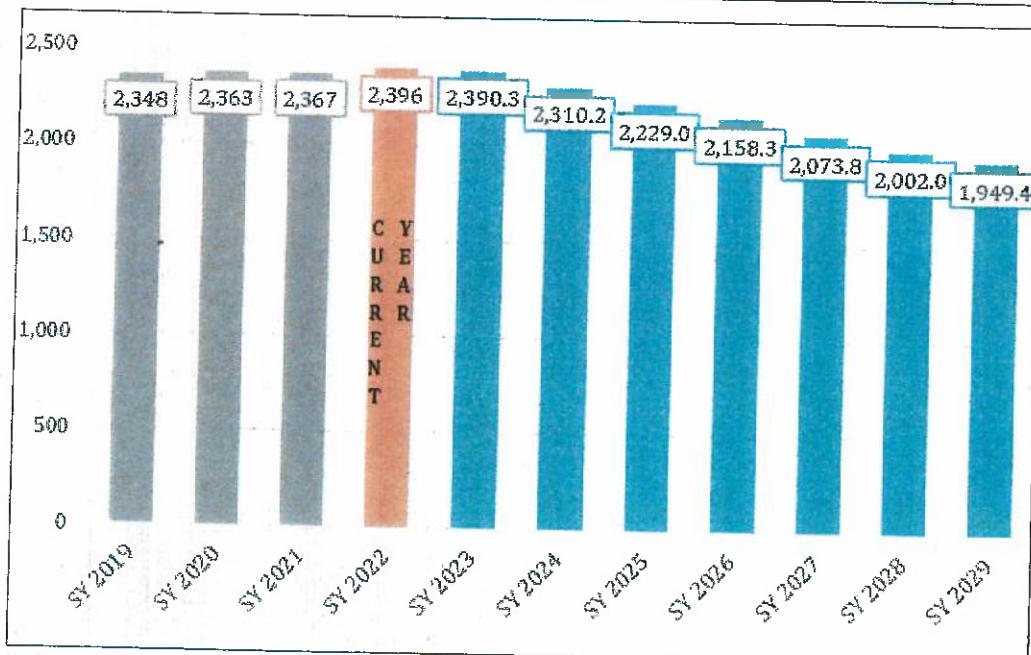
Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	15.0	-91.0	-49.0	-17.9	-15.3	-1.8	-11.0	-10.8	-17.0	-15.1
	1.6%	-9.7%	-5.8%	-2.2%	-2.0%	-0.2%	-1.4%	-1.4%	-2.3%	-2.1%



## High School Projections by Residence

Grade	Historic Resident Students			Current	Forecasted Resident Students						
	SY 2019	SY 2020	SY 2021		SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028
	522	464	497	474	505.9	477	443	456.6	461.6	461.3	461.9
1	523	481	495	507	480.2	514.7	484.9	448.2	460.2	463.4	463.1
2	536	486	501	500	507.3	483.1	516.6	484.8	446.8	456.8	460.1
3	518	515	489	485	489.7	499	474.6	504.9	472.5	434	443.7
4	547	479	529	485	475.8	482.7	490.8	463.4	491.1	458.1	420.8
5	570	540	497	534	490.7	484	490.6	496.6	468.4	494.5	461.2
6	601	572	550	530	541.2	500.6	493	496.2	500.6	470.9	497
7	636	599	583	542	522.6	537	495.7	486.6	487.5	489.2	459.6
8	635	643	607	581	550.4	534.1	547.2	503.1	492.2	491.5	493
9	620	635	644	625	588.0	558.9	542.8	554.0	508.6	495.1	493.6
10	585	601	635	621	615.2	581.5	552.2	534.8	543.9	497.7	484.2
11	577	568	567	620	601.9	598.9	566.1	535.4	517.3	523.9	479.4
12	566	559	521	530	585.2	570.9	567.9	534.1	504.0	485.3	492.2
Actual Resident Students				Forecasted Resident Students							
Total 9-12	2,348	2,363	2,367	2,396	2,390.3	2,310.2	2,229.0	2,158.3	2,073.8	2,002.0	1,949.4

Annual Change	2019 to 2020	2020 to 2021	2021 to 2022	2022 to 2023	2023 to 2024	2024 to 2025	2025 to 2026	2026 to 2027	2027 to 2028	2028 to 2029
	15.0	4.0	29.0	-5.7	-80.1	-81.2	-70.7	-84.5	-71.8	-52.6
	0.6%	0.2%	1.2%	-0.2%	-3.4%	-3.5%	-3.2%	-3.9%	-3.5%	-2.6%







# CARSON CITY, NEVADA

## CONSOLIDATED MUNICIPALITY AND STATE CAPITOL

**To:** Hope Sullivan, Community Development Director

**From:** Jennifer Budge, CPRP, Parks and Recreation Director 

**Subject:** Growth Management Impacts on Parks and Recreation Services

**Date:** May 16, 2023

Thank you for providing the opportunity to provide feedback on the Growth Management Plan. With an anticipated population growth rate of 3%, there will be a need to increase service levels provided by the Parks, Recreation and Open Space Department (Department) for Carson City residents.

### Sustainable Maintenance Models

It is recommended to not limit residential permits, as it would be counterproductive toward continued economic growth. This is subject to a sustainable maintenance program for new parks and recreation facilities. Maintenance and infrastructure preservation should be 100% funded by Homeowners or Maintenance Associations (HOA), with a Landscape Maintenance District (LMD) as a secondary measure, that does not require funding from the City's general fund. Maintenance endowments are also recommended for new projects that require wetland mitigation or labor-intensive natural resource management. While the City already has more parks per capita than the national average, the Department operates at approximately 80-acres of parkland per park maintenance worker. ***HOA's and LMD's are a creative, sustainable alternative to ensure maintenance of new facilities, while not further impacting existing staffing levels.***

### Water Resources

Additional growth in parks and recreation will also have impacts to the community's water system. Efforts should be made to reduce turf, incorporate low impact development best management practices, transition to artificial turf, install recycled water systems, and utilize reclaimed/effluent water resources, compliant with the City's Effluent Master Plan, whenever possible. Conservation efforts and floodplain management along the Carson River and tributaries are also a priority for the Department and should be considered as new growth occurs. ***A diversified approach toward water use will reduce the demand on the community's drinking water, while still providing a first-rate park system that supports wildlife habitat and the natural environment.***

### Public-Private Partnerships

As new subdivisions are constructed, additional parks will be contemplated consistent with the City's Park Master Plan, and additional trail connectivity, as outlined in the Unified Pathways Master Plan (UPMP). While new neighborhood parks can be funded through Residential Construction Tax (RCT), RCT doesn't generate enough funds to adequately construct parks without a significant contribution from developers. The current RCT fund is entirely encumbered, with no available balance. Partnerships between the City and developers are critical to ensure creative outdoor recreation spaces and trails can be incorporated throughout the City. Unfortunately, RCT is not a sustainable funding source, as it does



not contribute to deferred maintenance and infrastructure preservation needs. ***Efforts to update the City's Parks and Recreation and Open Space Master Plans are a priority. Plan updates should provide the direction of limiting the number of new parks within the City, while reinvesting/reimagining existing parks, in cooperation with the development community.***

**Infrastructure Preservation and Facility Needs**

Increased growth will also contribute to the need for additional recreation facilities, especially athletic fields. The lack of athletic fields represents one of the Department's most serious service challenges. Increasing athletic fields at existing parks such as Pete Livermore Sports Complex and Centennial Park to accommodate traveling sports tournaments, will not only positively contribute to the City's economic vitality, but help meet the need for local youth and adult sports organizations. Creative partnerships with the Cultural and Tourism Authority, Youth Sports Association and others help supplement City resources to meet the recreational demands of this growing community.

There is also a need for additional recreation facility diversity such as dog parks. Efforts to construct the 3-acre dog park on Airport Road as part of the Lompa development will help meet that need, while the city adds new dog parks at Ronald D. Wilson Park and Mills Park and renovates the Fuji Dog Park. A large-scale interactive splash/spray park is proposed at Mills Park and is a recreation model for a financially self-sustaining operation, as demonstrated throughout other Northern Nevada park systems. ***Should growth occur, it is encouraged to focus on buildout of existing parks such as Pete Livermore and Centennial Sports Complexes, while rehabilitating and reimagining aging facilities, like Mills and Fuji Parks, rather than acquire additional land inventory.***

RESOLUTION NO. 2023-R-\_\_\_\_

A RESOLUTION AMENDING THE MAXIMUM NUMBER OF RESIDENTIAL BUILDING PERMIT ALLOCATIONS UNDER THE CARSON CITY GROWTH MANAGEMENT ORDINANCE FOR THE YEARS 2024 AND 2025, ESTIMATING THE MAXIMUM NUMBER OF RESIDENTIAL BUILDING PERMIT ALLOCATIONS FOR THE YEARS 2026 AND 2027, ESTABLISHING THE NUMBER OF RESIDENTIAL BUILDING PERMIT ALLOCATIONS AVAILABLE WITHIN THE DEVELOPMENT PROJECT AND GENERAL PROPERTY OWNER CATEGORIES, AND ESTABLISHING A MAXIMUM AVERAGE DAILY WATER USAGE AND CRITERIA FOR DECISION MAKING FOR COMMERCIAL AND INDUSTRIAL BUILDING PERMITS AS A THRESHOLD FOR GROWTH MANAGEMENT COMMISSION REVIEW.

WHEREAS, Carson City Municipal Code Section 18.12 requires the Carson City Board of Supervisors to establish a fixed number of residential building permit allocations on a two-year rolling basis, to establish the number of residential building permit allocations available within the Development Project and General Property Owner categories, and to establish a maximum average daily water usage for commercial and industrial building permits as a threshold for Growth Management Commission review in order to manage growth within Carson City; and

WHEREAS, pursuant to Carson City Municipal Code Section 18.12 the Growth Management Commission met in a duly noticed public meeting on May 31, 2023 and recommended the maximum number of residential building permits to be made available for calendar years 2024 and 2025, and the Commission estimated the maximum number of residential building permits for calendar years 2026 and 2027; and

WHEREAS, the Carson City Board of Supervisors finds and declares pursuant to Carson City Municipal Code Section 18.12 that city water and wastewater treatment capacity, as well as other resources identified in Section 18.12.050(2), are essential resources that limit the available residential building permits authorized by this resolution.

NOW, THEREFORE, the Carson City Board of Supervisors hereby resolves that:

1. Beginning on the first city working day in January 2024, the Building Division shall make available a total of **765** residential Growth Management allocations for building permits. The 2023 year-end balance of unused allocations shall be voided and returned to the utility manager. The allocations for residential building permits shall be disbursed as follows:

(a) For the general property owner category, a subtotal of **329** residential permits (43% of total residential building permit allocation). A property owner may apply for a maximum of 30 residential building permits in Period 1 (January through March 2024) subject to the availability of building permits.

(b) For the development project category, a subtotal of **436** residential building permits (57% of total residential building permit allocation). Individual development projects qualified for inclusion on the project list shall be entitled to apply for an equal share of building permits during Period 1 based on the number of qualified development projects that have applied to

the Building Division for development project status as of the first City working day in January 2024. Where a development project has less lots or units than the total share of building permits allocated to it, the remaining building permits shall be distributed equally among the remaining development projects. Additional development projects may be added to the list during Period 1 and use any remaining building permits. If no additional permits are available in Period 1 in this category, development projects not on the list at the beginning of Period 1 may only apply for building permits from the general property owner category during Period 1 in accordance with the limitations set forth above and may be added to the development category anytime during Period 2 (April through June).

(c) Any residential building permits remaining from Period 1 shall be made available in Period 2 (April through June) and Period 3 (July through December) in accordance with Carson City Municipal Code Section 18.12.055.

2. Beginning on the first city working day in January 2025, the Building Division may upon Board of Supervisors' approval make available pursuant to Carson City Municipal Code Section 18.12 a maximum total of **788** residential building permits, assuming three percent growth occurs in 2024. The building permits shall be disbursed as follows:

(a) For the general property owner category, a subtotal of **339** residential building permits may be made available. General property owners shall be entitled to apply for a maximum of 30 residential building permits in Period 1 subject to the availability of building permits.

(b) For the development project category, a subtotal of **449** residential building permits may be made available. Development projects qualified for inclusion on the project list shall be entitled to apply for building permits in accordance with paragraph 1(b), above.

(c) Any building permits remaining from Period 1 shall be made available for Periods 2 and 3 in accordance with Carson City Municipal Code Section 18.12.

3. For calendar year 2026, it is estimated that the Board of Supervisors may make available a maximum of **812** residential building permits, assuming continued three percent growth.

4. For calendar year 2027, it is estimated that the Board of Supervisors may make available a maximum of **836** residential building permits, assuming continued three percent growth.

5. Pursuant to Carson City Municipal Code Section 18.12, prior to issuance of building permits, any commercial or industrial projects proposed in 2024 that exceed the threshold of **10,000** gallons per day water usage must have the Growth Management Commission's review and approval to assure water availability.

6. In considering applications in response to subsection 5, the Growth Management Commission must first find that the use utilizes water conservation measures and techniques. If that finding is made, the Growth Management Commission must consider if the use will promote health, welfare, safety or quality of life; or create quality jobs; or promote recreation

and tourism. If both such findings are made, an application under subsection 5 can be granted.

7. Any building permits made available by this resolution shall be subject to all of the requirements of Carson City Municipal Code Chapter 18.12 (Carson City Growth Management Ordinance).

8. This resolution supersedes all prior resolutions establishing growth management allocations and shall have the full force and effect of law and be incorporated by this reference into Carson City Municipal Code Chapter 18.12.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_ 2023.

AYES: Supervisors \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

NAYES: Supervisors \_\_\_\_\_

ABSENT: Supervisors \_\_\_\_\_

\_\_\_\_\_  
LORI BAGWELL, Mayor

ATTEST:

\_\_\_\_\_  
WILLIAM SCOTT HOEN, Clerk-Recorder

**2024 Building Permit Distribution Table (3% alternative)  
Per CCMC 18.12.055(1)**

	<b>Period 1</b> January, February & March	<b>Period 2</b> April, May & June	<b>Period 3</b> July – December
<b>Total Available</b>	<b>765</b> allocations available	Any remaining permits available	Any remaining available
<b>Development Category</b> (31 or more lots or units)	<p><b>436</b> building permits available (57%)</p> <p>Permits divided equally among the qualified development projects on the list as of January 2.</p> <p>Where a development project has less units or lots than the total number of building permits allocated to it, the remaining units shall be divided equally among the remaining development projects.</p> <p>Additional development projects may be added to the list during Period 1 and use any remaining building permits if the units or recorded lots of the qualifying projects on the list total less than the number of building permits allocated to the development category.</p>	<p>A maximum cumulative total of <b>654</b> permits (50% above the maximum number originally allocated to the category) may be obtained on a first come, first served basis, or until the total number of available permits run out, whichever comes first.</p>	<p>Any remaining building permits available on a first come, first served basis</p>
<b>General Category</b>	<p><b>339</b> building permits available (43%)</p> <p>A maximum of 30 permits may be issued to an individual property owner during this period.</p>	<p>A maximum cumulative total of <b>508</b> permits (100% above the maximum number originally allocated to the category) may be obtained on a first come, first served basis, or until the total number of available permits run out, whichever comes first.</p>	<p>Any remaining building permits available on a first come, first served basis</p>

Assumptions:

2022 Population per State Demographer	58,314
People per household per 2020 Census	2.32
2022 Alloction utilized	350

Methodology

1. (2022 population) + (2022 allocations issued x people per household) = 2023 population estimate
2. (2023 population estimate) x ( percent growth) = 2024 population estimate
3. (2024 population estimate) - (2023 population) = 2024 population growth estimate
4. (2024 population growth estimate) / (people per household) = Number of 2024 allocations

<u>3% growth</u>	<u>Estimated Subsequent Years</u>	
59126	2025	788
60900	2026	811
1774	2027	834
765		

2.5% growth

59126	2025	653
60604	2026	669
1478	2027	686
637		

<u>2% growth</u>	2025	520
59126	2026	530
60309	2027	541
1183		
510		