

ORDINANCE NO. O-44-2026

AN ORDINANCE OF EAGLE MOUNTAIN CITY, UTAH,
APPROVING THE WASTEWATER MASTER PLAN
AND IMPACT FEE FACILITIES PLAN (IFFP)

PREAMBLE

WHEREAS, the City Council of Eagle Mountain City, Utah, finds that it is in the public interest to approve the Wastewater Master Plan and Impact Fee Facilities Plan (IFFP), as set forth in Exhibit A.

NOW THEREFORE, BE IT ORDAINED by the City Council of Eagle Mountain City, Utah:

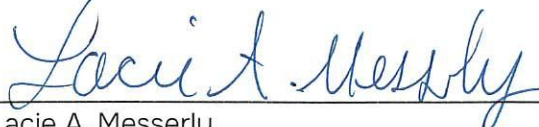
1. The City Council finds that all required notices and hearings have been completed as required by law to consider and approve the Wastewater Master Plan and Impact Fee Facilities Plan (IFFP), as set forth in Exhibit A.
2. The Wastewater Master Plan and Impact Fee Facilities Plan (IFFP), as set forth in Exhibit A, is hereby approved.
3. The City Council has considered the impact of this Ordinance on and found it consistent with family health, stability, and formation as required by Utah law.
4. This Ordinance shall become effective immediately upon its passing.

ADOPTED by the City Council of Eagle Mountain City, Utah, this 6th day of October, 2026.

EAGLE MOUNTAIN CITY, UTAH


Jared R. Gray, Mayor

ATTEST:


Lacie A. Messerly
City Recorder

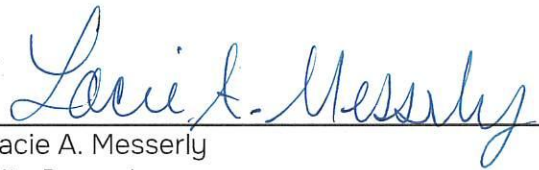


CERTIFICATION

The above Resolution was adopted by the City Council of Eagle Mountain City, Utah on the 6th day of October, 2026.

Those voting yes:	Those voting no:	Those excused:	Those abstaining:
☒ Melissa Clark	☐ Melissa Clark	☐ Melissa Clark	☐ Melissa Clark
☒ Zachory Huish	☐ Zachory Huish	☐ Zachory Huish	☐ Zachory Huish
☒ Craig Whiting	☐ Craig Whiting	☐ Craig Whiting	☐ Craig Whiting
☒ Rich Wood	☐ Rich Wood	☐ Rich Wood	☐ Rich Wood
☒ Brett Wright	☐ Brett Wright	☐ Brett Wright	☐ Brett Wright




Lacie A. Messerly
City Recorder

Posted on 10/9/2026 by SA.

Exhibit A

ADDENDUM

2025 Wastewater Master Plan

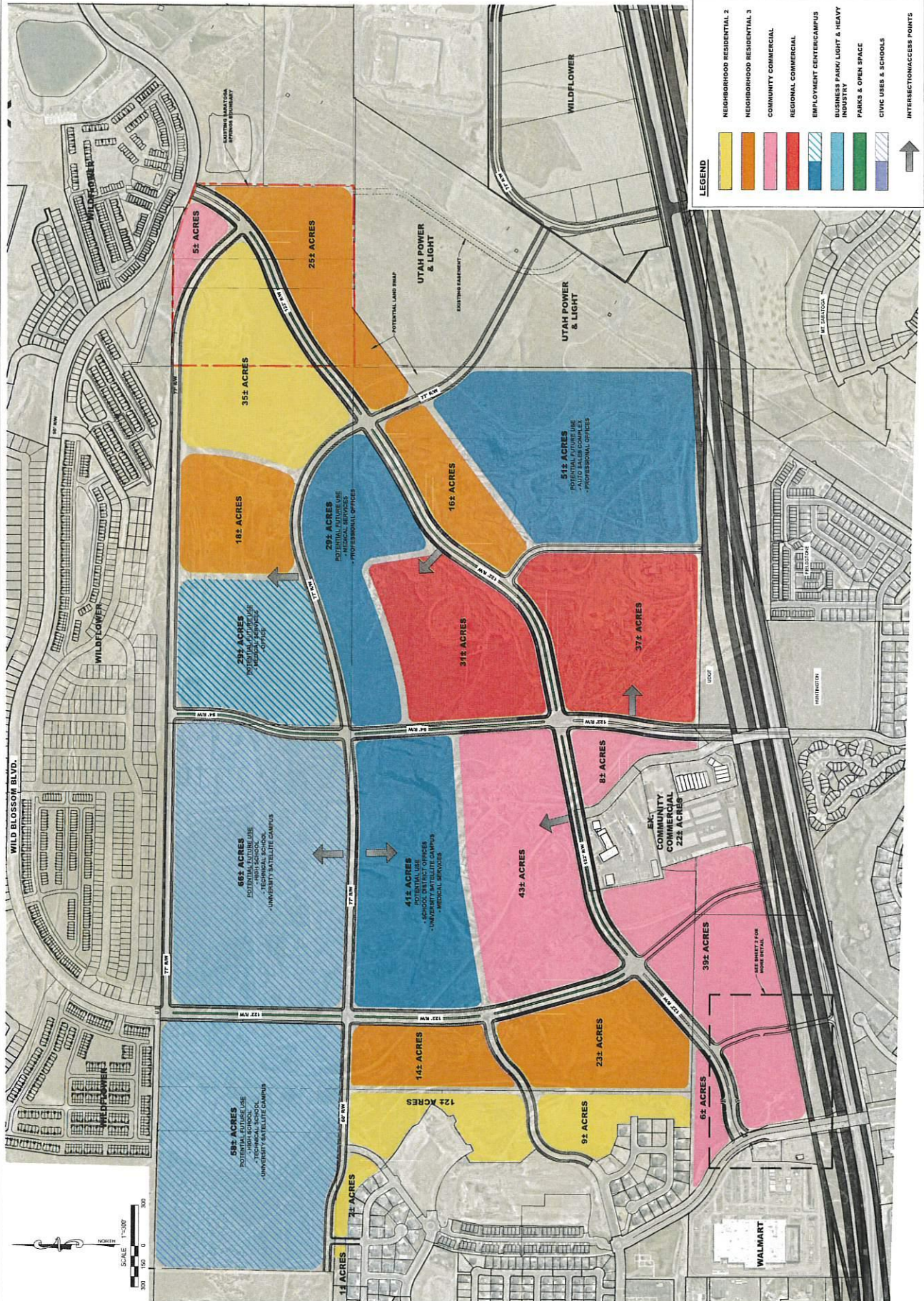
JWO Engineering, PLLC was contracted to evaluate additional development within the North Service Area (NSA) and what impact that would have on existing wastewater infrastructure. It was also requested to evaluate what impact Additional Dwelling Units (ADU's) would have on the existing wastewater infrastructure.

NORTH SERVICE AREA

The North Service Area (NSA) is nearly built out, but there are still some undeveloped areas. Recently a new development has been submitted for proposed plans in the northeast corner of Eagle Mountain City named Talon's Cove. This area is currently used as a gravel pit.

Talon's Cove

Most of the development will be within EMC, a small portion of it will be in Saratoga Springs City. See proposed map below. This area will add RII and RIII housing as well as commercial and school areas.





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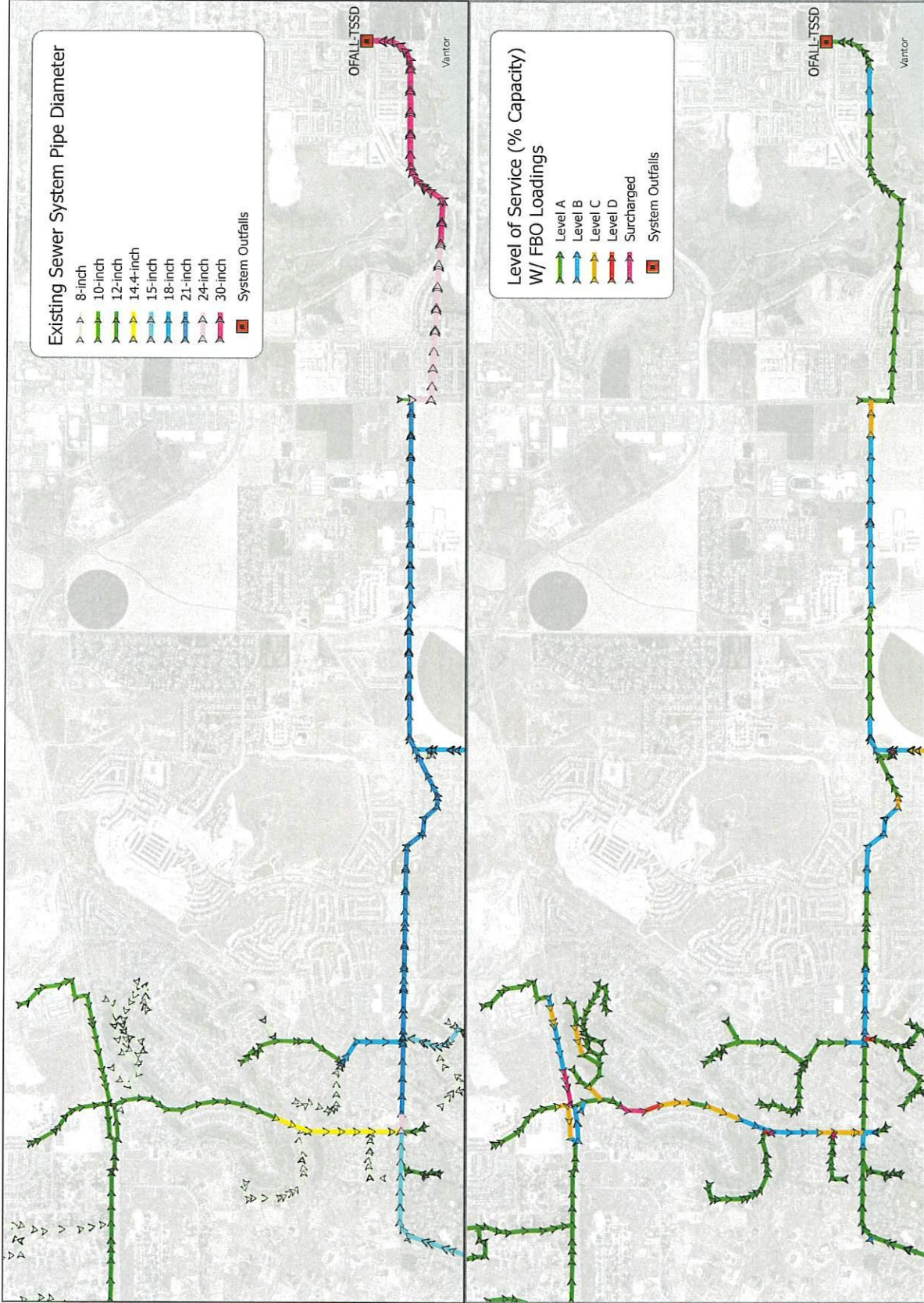
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North Service Area Model

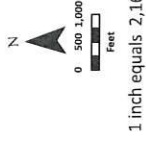
The previous wastewater model used a value of 289 ERU's which was based on the existing city master planning land use. Talon's Cove proposed development adds several housing areas which will increase the number of ERU's for this area. The maximum value of ERU's for RII and RIII were used to be conservative (10 ERU/acre and 20 ERU/acre). Based on these assumptions, the portion of Talon's Cove with in city limits would be 2326 ERU's. This value was used for the existing pipe model as well as the future buildout upsized model.

Model results for the main trunkline show that several sections of pipe will be LOS C, D and even surcharged in the flatter sections along Ranches Parkway. This portion of trunkline has 14" and 12" diameter pipes that are exceeding LOS B to convey flows with the added ERU's. This trunkline gets up to 15' deep as it approaches Pony Express Parkway. Figures below depict the existing system pipe diameter and what the resulting LOS would be with adding Talon's Cove ERU's.

A second model scenario was run with increased pipe sizes along Ranches Parkway to see what improvements would be required to maintain a minimum LOS B along this section of pipe. Results are depicted on the second figure below using 18" and 14" pipes, crossing State Road 73/ Cedar Fort Road, all the way to Talon's Cove Development.



Information depicted may include data unverified by AES2S. Any reliance upon such data is at the user's own risk. AES2S does not warrant this map or its features are either spatially or temporally accurate.
Coordinate System: NAD 1983 StatePlane Utah Central FIPS 4302 Feet | Edited by: JCalhoun



Locator Map Not to Scale
Eagle Mountain City
Utah, UT

EXISTING
WASTEWATER
SYSTEM
NORTH SERVICE
AREA

FULL BUILDOUT
LOADING
LEVEL OF SERVICE
W/
IMPACTS
EXISTING PIPE
DIAMETER (IN)

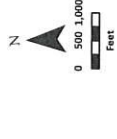
WASTEWATER SYSTEM
MASTER PLAN

Date: 6/22/2026





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Coordinate System: NAD 1983 StatePlane Utah Central FIPS 4302 Feet | Edited by: J. Calhoun



Locator Map Not to Scale

Eagle Mountain City
Utah, UT

**FUTURE
WASTEWATER
SYSTEM**

**NORTH SERVICE
AREA**

**FULL BUILDOUT
LOADING
LEVEL OF SERVICE
IMPAIRS
W/
UPSIZED PIPE
DIAMETER (IN)**

**WASTEWATER SYSTEM
MASTER PLAN**

Date: 6/22/2026



ADU'S

Recent legislature has passed SB284 allowing residential lots that exceed 0.25 Acres or 11,000 square feet to have ADU's on their property. While it is allowed, not all lots meeting these criteria may desire to add an ADU. Having an additional residence to a lot would add an additional ERU to the lot and add additional loading to the wastewater system. The maps below highlight residential lots that would be eligible for adding an ADU within each service area. The table below shows how many current lots would be eligible for adding an ADU based on the recent SB284 within each service area. It also shows what overall percent increase in ERU's based on 100%, 50% and 30% of eligible lots adding an ADU. The NSA is nearly built out, however the SSA and WSA still have a lot of development that will still take place, which will potentially add even more eligible lots for ADU's.

Table 1 - ADU Eligibility

	ERU's Modeled (Buildout)	Potential ADU's*	Additional ERU %	
NSA	16,472	984	100%	6%
		492	50%	3%
		295	30%	2%
SSA	34,629	715	100%	2%
		358	50%	1%
		215	30%	1%
WSA	14,578	417	100%	3%
		209	50%	1%
		125	30%	1%

* Based on 2026 lots

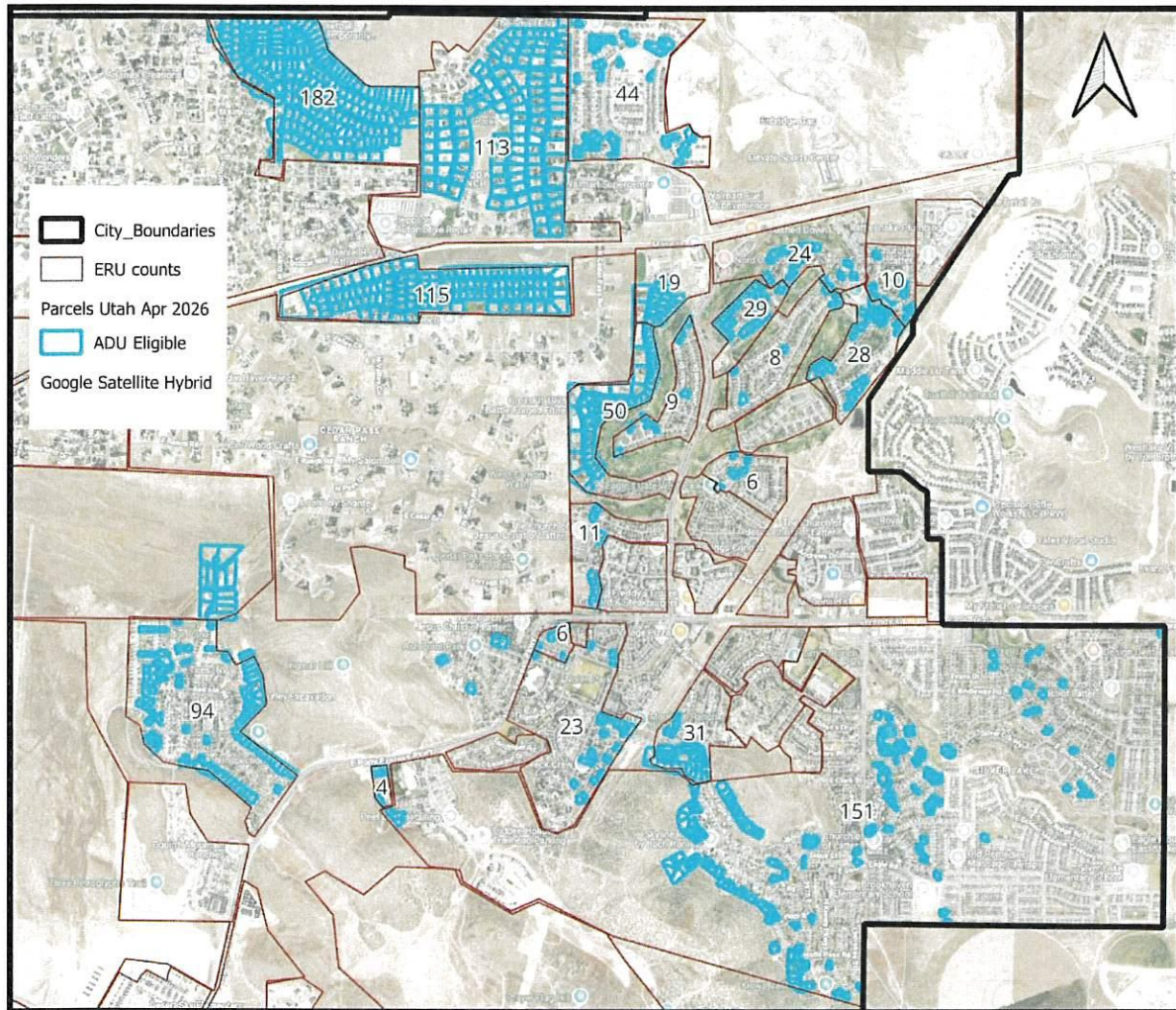


Figure 1 - NSA ADU Eligibility

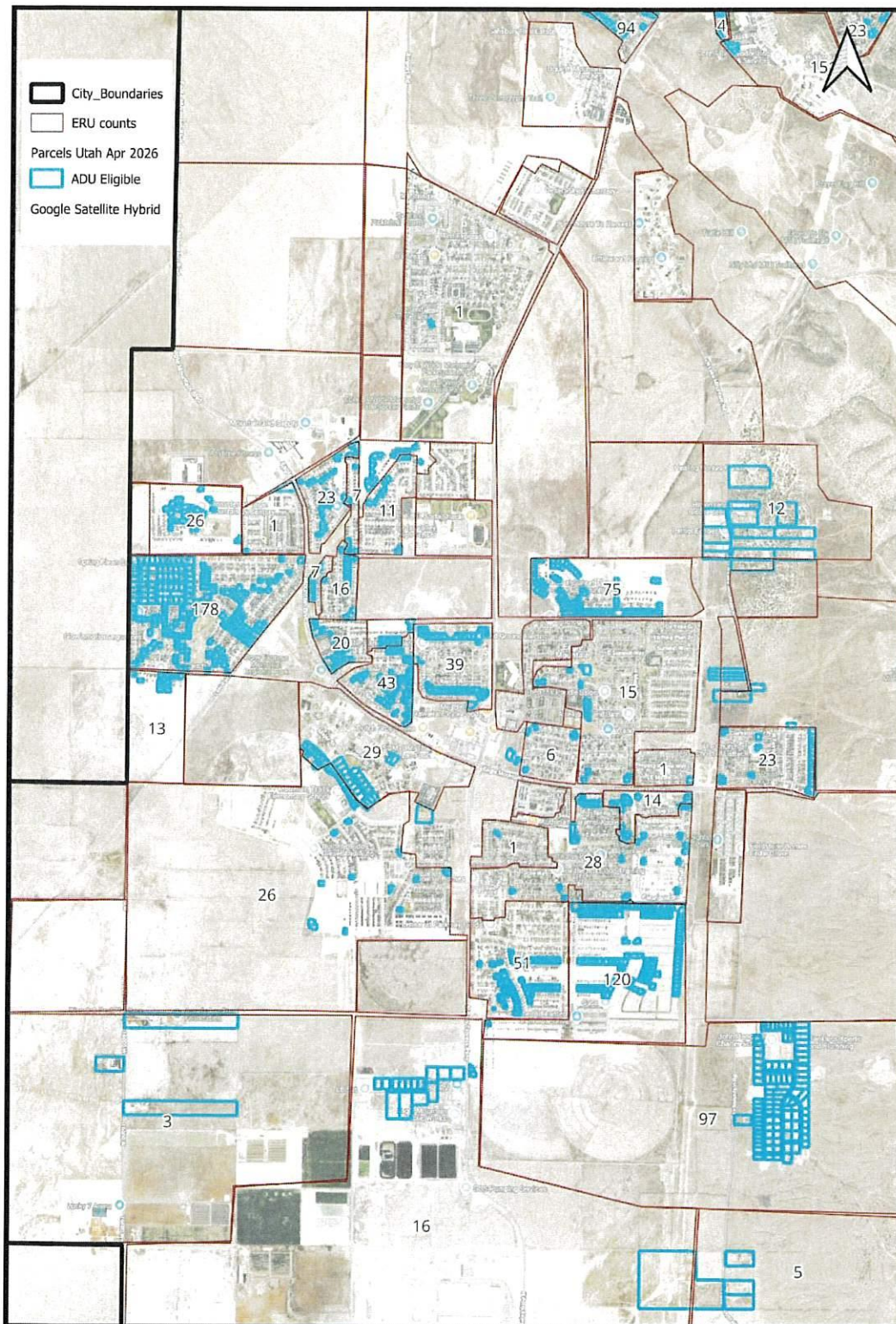


Figure 2 - SSA ADU Eligibility

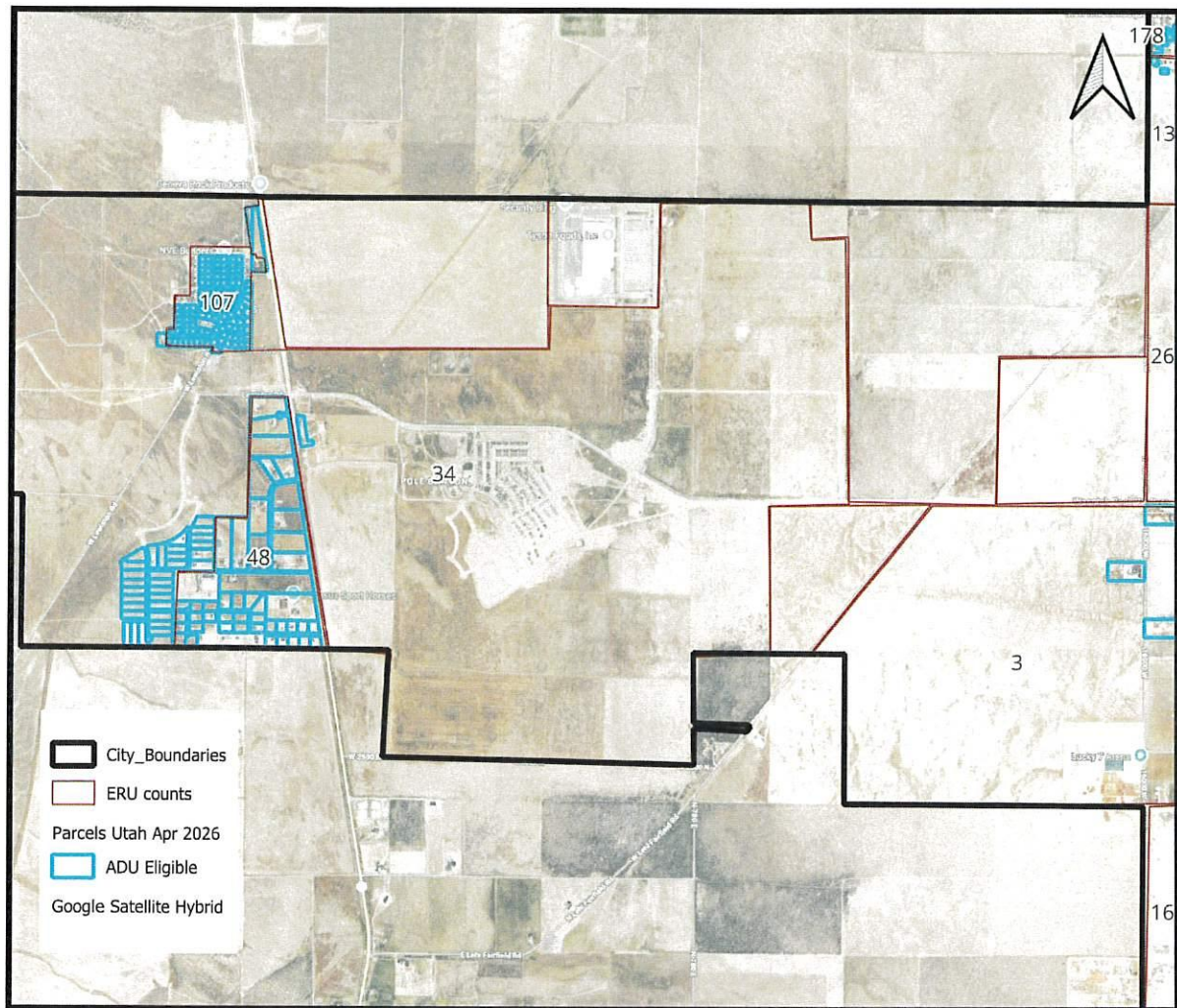


Figure 3 - WSA ADU Eligibility



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RECOMMENDATIONS

JWO Engineering, PLLC recommends increasing the capacity along Ranches Parkway to accommodate future buildout flows. The model run in this report was for replacing 14" pipe with 18" pipe and replacing 12" pipe with 14" pipe to accommodate future buildout ERU's.

Alternatively, EMC could install a second sewer line that could help with having a second line crossing State Road 73 or Cedar Fort Road and not having to be as deep as it would not need to convey flows from adjacent residential developments along Ranches Parkway. This could save costs of replacing and upsizing the existing pipeline as well as maintaining service in the NSA during construction. The estimated ERU capacity for a second line with 12" or 15" piping would accommodate similar ERU's as the upsized piping in this report.

EMC should plan for this improvement now, to avoid having wastewater service issues as development continues. It should be noted that the model scenario in this report does not show that a LOS A can be provided with these diameters and ERU's. Some lower sections of pipe may need to be larger diameter to model at a LOS A.

EMC should continue to establish city standards for residents planning to add an ADU to the property. As an ADU would mean an additional ERU to the property. Things to consider would be impact fees and service laterals and sizing as well as including ADU's with future Master Plans.

Costs

Based on the diameter and LOS depicted in this report and models, it is estimated that the upsizing of the existing trunkline pipes would be \$1.8 million, based on 2026 dollars. Alternatively, installing a second pipeline would cost between \$1.2-\$1.6 million, based on 2026 dollars, offering a potential \$0.6 million in cost savings and no disruption of service.

EAGLE MOUNTAIN CITY



**2025 WASTEWATER
IFFP REPORT**

Updated 8-17-26

Prepared by:



1307 N Locust Lane

Provo, UT 84604

Contact: Jacquelyn Lewis, P.E.

309-271-9981

August 2026



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EXECUTIVE SUMMARY

JWO Engineering, PLLC was contracted to complete a wastewater Impact Fee Facilities Plan (IFFP) Eagle Mountain City (EMC). This report uses information from the 2025 Wastewater Master Plan and will evaluate costs for necessary infrastructure for wastewater conveyance and treatment within the next five – ten years for EMC as well as a budget for these projects. As EMC is experiencing high growth rates, JWO Engineering, PLLC recommends that this IFFP focus on 5 years as the rapid growth rate in the city may bring additional needs to light in the next 5 years. This IFFP is based on projected growth as explained in the 2025 Wastewater Master Plan.

An IFFP fills the requirements established by Utah code Title 11 Chapter 36a, the “Impact Fees Act,” and will assist EMC in determining impact fees to fund necessary capital improvements for future anticipated growth.

The following table is a summary of projects, and their estimated costs that are listed in the 2025 Wastewater Master Plan to be completed within the next 5 years for EMC. Please refer to the 2025 Wastewater Master Plan for a complete list of recommended projects and their estimated costs. Estimated costs in this table are concept level estimates based on 2025 costs. In the Budgeting section of this report, the costs were adjusted using an assumed inflation rate for each year. Actual costs will be determined by the project details and economic conditions at the time of the work being carried out. Please see the Exhibits within this report depicting the proposed pipeline projects.

This IFFP has been updated with costs as requested by EMC in August, 2026

Table 1 – Recommended Collection Improvements Within Next 5 Years

Collection Improvement Project	2026 Estimate (Millions)
Ranches Upsize	\$ 1.80
East Trunkline	\$ 21.50
West Trunkline	\$ 12.14
Pole Canyon Trunkline	\$ 15.92
Steeplechase LS Upgrade	\$ 0.20
Total for next 5 years	\$ 51.56

Table 2 - Recommended Treatment Improvements Within Next 5 Years

Treatment Improvement Project	2026 Estimate (Millions)
WWTP 6 MGD Expansion	\$ 188.00
Treated Water Disposal	\$ 13.80
Total for next 5 years	\$ 201.80

Table 3 - Recommended EMC Wastewater Improvements Within Next 5 Years

EMCWastewater Project	2025 Estimate (Millions)
Administration Building	\$ 6.00
Annual GIS updates (5yr)	\$ 0.01
Total for next 5 years	\$ 6.01

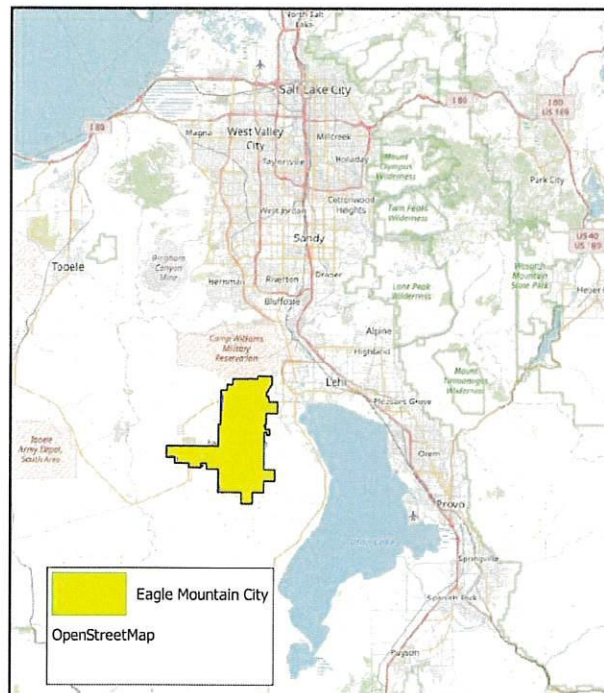


Figure 1 - Vicinity Map

BACKGROUND

Please see the 2025 Wastewater Master Plan for more detailed information. Eagle Mountain City (EMC) located in Utah County near Utah Lake as shown in the vicinity map above and is one of the

fastest growing cities in the US. The average household size in the state of Utah is 3.09. EMC has an average household size of 4.37 people, one of the highest in the nation.

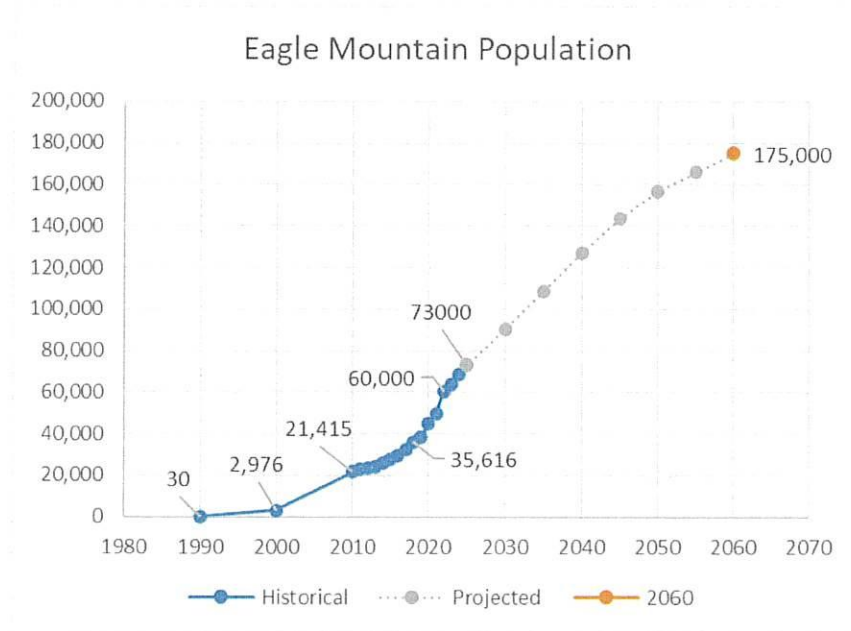


Figure 2 - Eagle Mountain City Population Chart

The figure above depicts the anticipated growth of EMC with a population of 175,000 by 2060. The buildout population is expected to be 240,000.

EMC's wastewater system contains three separate service areas designated as the North Service Area (NSA) the South Service Area (SSA) and the West Service Area (WSA). These service areas are approximate and may vary with continued development and improvements. The NSA conveys flows to the East and are treated by Timpanogos Special Services District. Flows from the SSA and WSA flow South and East respectively to the existing WWTP to be treated by EMC. The flows treated by EMC are treated and disposed of by means of Rapid Infiltration Basins (RIBs). These service areas were recently adjusted with the 2025 Wastewater Master Plan and are shown in the figure below.

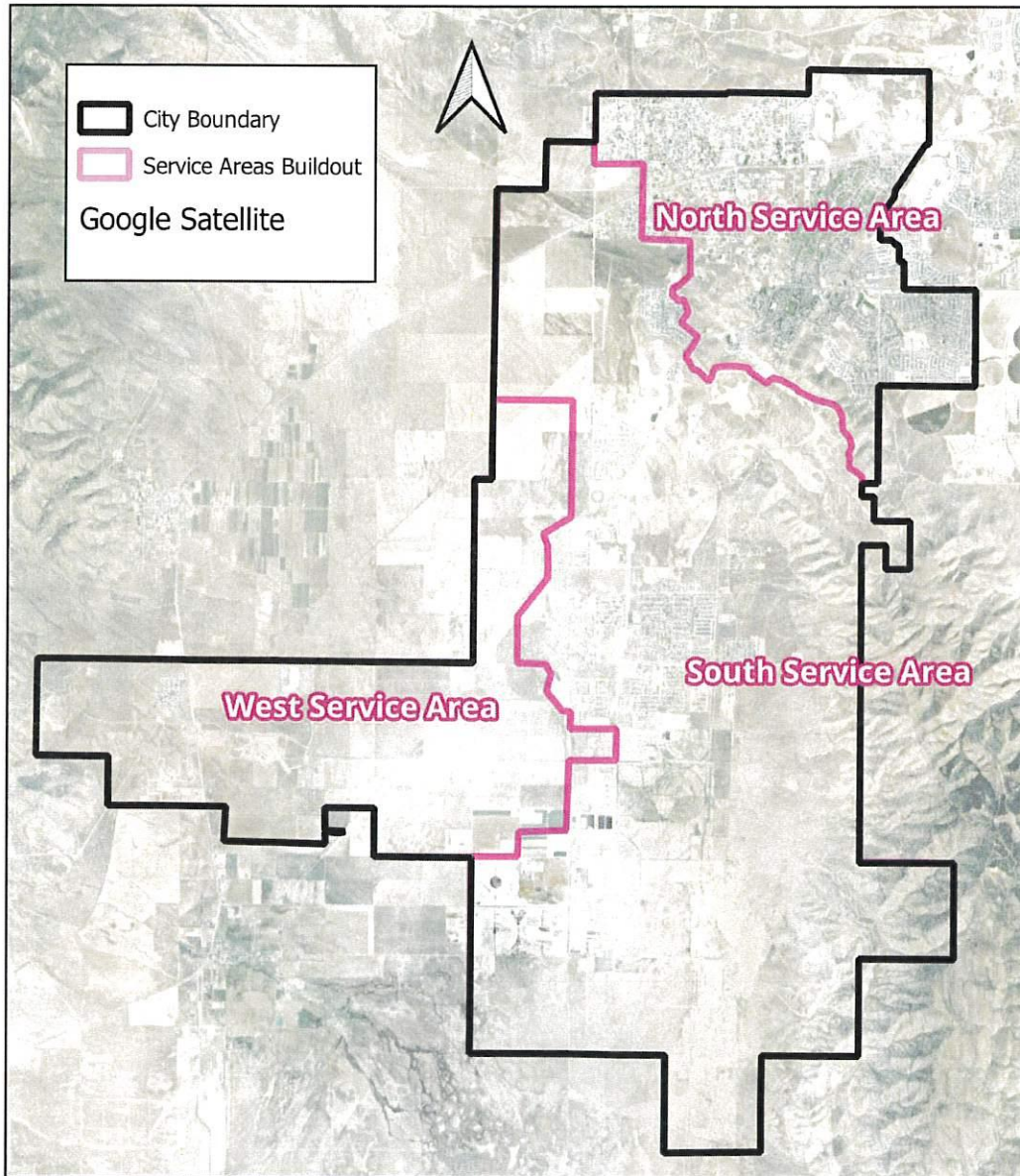


Figure 3 - Service Areas

EXISTING REPORTS

Current available reports addressing EMC's wastewater situation include the 2025 Wastewater Master Plan, EM WWTP Flows and Loads Report, 2024 EMC WSA WW IFFP, EMC Impact Fee Facilities Plan Report from 2012 (IFFP 2012), 2018 (IFFP 2018), and 2022 (IFFP 2022). Eagle Mountain General Plan (2018) was also used for future land use and density populations. Some data from these existing reports was used in our assessment of the existing and proposed EMC wastewater water facility conditions.

EQUIVALENT RESIDENT CONNECTIONS (ERC'S)

An Equivalent Residential Connection (ERC) alternatively referred to as an Equivalent Residential Unit (ERU) represents the design flowrate from one residential connection. The 2025 Wastewater Master Plan established an ERC value of 220 gallons per day.

Current ERU's were obtained from EMC and are shown in the table below.

Table 4 - Existing ERU Count

	Current # ERU's
NSA	8,027
SSA	6,744
WSA	134

Industrial and commercial users will vary significantly with the number of ERU's they would need. New Industrial and commercial users should be evaluated individually to determine the number of ERU's needed and the capacity of the system to accommodate their need.

IMPACT FEE FACILITIES PLAN

Impact fees look up to 5 years ahead for what infrastructure will be needed based on anticipated growth. With impending continual growth, all improvement projects should begin as soon as possible to alleviate capacity concerns for the existing wastewater system. Improvements were organized into potential improvements projects. Exact project items included in each project may vary as deemed appropriate or necessity warrants. The table below shows the projects needed for anticipated growth as well as the estimated needed capacity within the next 5 years. Actual needed capacities may vary and require additional projects to be completed earlier than shown. An anticipated construction year is also listed for each project. Projected costs are shown for each year assuming 4% inflation for each year after 2025. These construction costs include materials, mobilization, traffic control, engineering and contingency. These construction costs do not include right-of-way acquisition and if needed for a project would be an additional cost to the project.

Table 5 - Total Improvement Costs

Improvement Project	2025 Estimate (Millions)	Estimated Construction Year	Cost with Inflation (Millions)	Anticipated %Capacity Needed in Next 5 years
Ranches Upsize	\$ 1.80	2028	\$ 2.02	75%
East Trunkline	\$ 21.50	2025	\$ 21.50	15%
West Trunkline	\$ 12.14	2026	\$ 12.63	50%
Pole Canyon Trunkline	\$ 15.92	2026	\$ 16.55	30%
Steeplechase LS Upgrade	\$ 0.20	2026	\$ 0.21	
WWTP 6 MGD Expansion	\$ 188.00	2026	\$ 195.52	

There is not a % Capacity needed for the wastewater treatment plant. This is due to a difference of flows vs solids. Generally speaking the capacity of a WWTP is determined by the amount of flows coming in. However, there is also a capacity for loading, or solids. The existing WWTP is nearly at capacity for solids despite it being a 2.4 MGD capacity and having an average of 1.9 MGD of flows. This is discussed in greater detail in EM WWTP Flows and Loads Report. There is an immediate and urgent need to increase the capacity of the WWTP. The capacity needed can be evaluated by ERU's being served. With the increased capacity of 6 MGD serving ERU's of 220 gpd, each ERU would need 0.036% of the WWTP.

Pole Canyon Trunkline will be constructed as part of the Firefly Development. EMC will need to construct the East and West Trunklines. The Steeplechase LS upgrade cost would include transitioning to an overwatch system, interconnect existing 3" and 4" force mains with a valve vault and achieve a capacity of around 200 gpm. If additional capacity is needed, a new force main will need to be constructed. The costs included in this report do not account for a new force main. It is not yet determined what the exact needs are for this upgrade, however, it is known that the existing LS is at capacity and that any additional flows will require an upgrade. As this upgrade is specific to the industrial/commercial user, these costs would not be attributed to residential user impact fees.

The NSA is nearly built out, however with the development known as Talon's Cove there will require additional capacity in the trunkline along Ranches Parkway. In addition to this improvement there may be additional impact fees for the NSA. The NSA WW flows are conveyed to Timpanogos Special Service District (TSSD). The NSA impact fee should meet the TSSD impact fee requirement. At the time of this report, the TSSD general sewer impact fee is nearly \$6,000 and expected to increase. Actual impact fee would be determined by the type of user or connection. The existing agreement between EMC and TSSD does not allow for additional land areas to be added to the NSA and treated by TSSD.

The figure below shows the 2025 Wastewater Master Plan proposed improvements including trunklines with the recommended diameter.

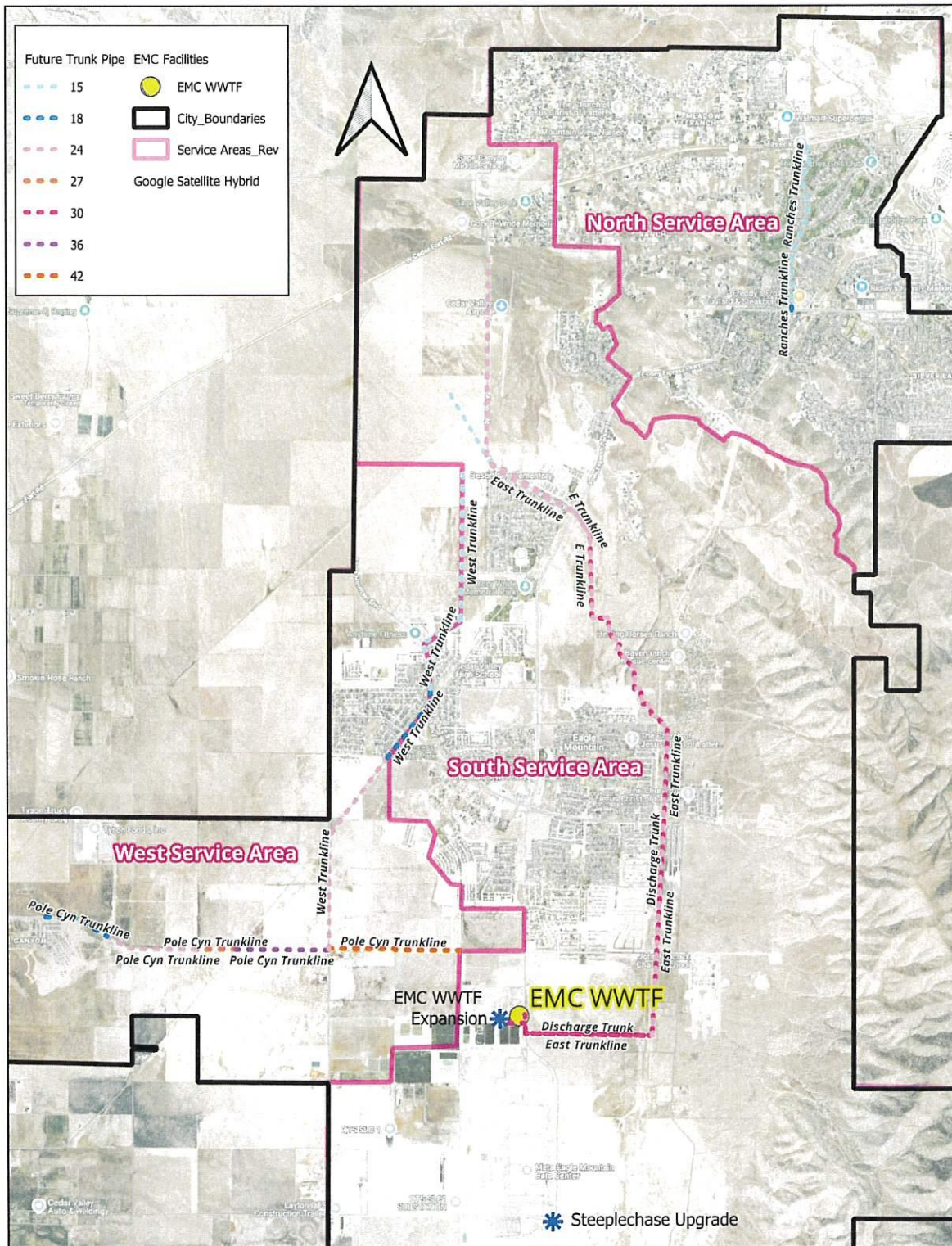


Figure 4 - Proposed Trunklines



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To help understand what areas are included with each trunkline, the following exhibit shows each area as well as estimated ERU's for sub-areas for build-out conditions. Areas that have approved plans show the number of ERU's based on those plans. Areas without approved plans were estimated by the area and a value of 3.4 ERU/Acre as established in the 2025 Wastewater Master Plan. Industrial and Commercial users will be evaluated on an individual basis as those demands will vary significantly depending on the type of industry.

ADU's are not included in these numbers here as they are not anticipated to have a big impact in the next several years. With the recent legislation regarding ADU's, EMC should track the number of ADU's added and include a more detailed analysis with the next IFFP update.

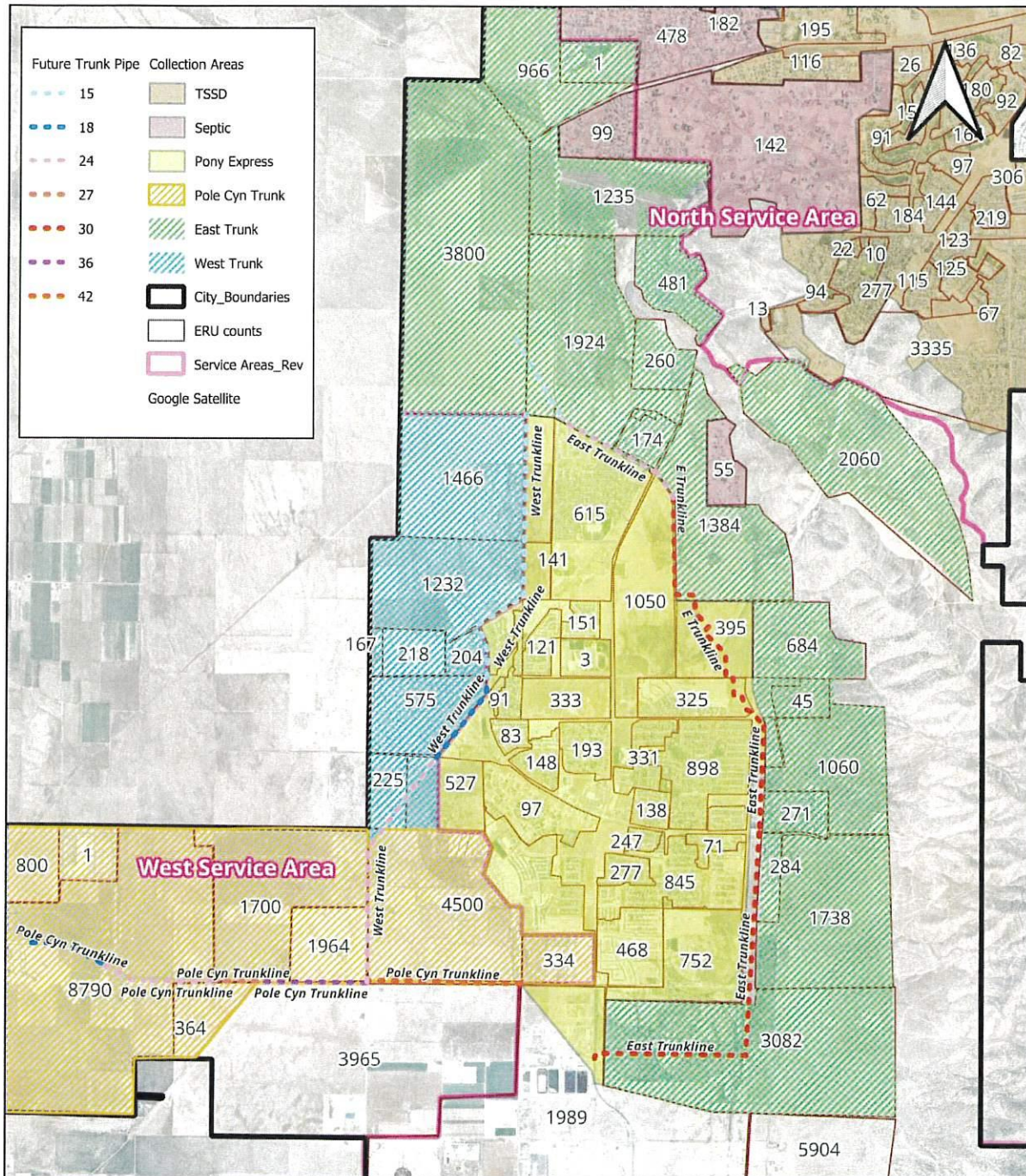


Figure 5 - Proposed Trunklines with Areas and ERU's

The table below shows the estimated ERU's at build-out for each trunkline that conveys flows to EMC WWTP. "Other" ERU's are not able to be conveyed by the existing or proposed trunklines. These areas will require their own trunkline and or lift stations to be conveyed to the existing

WWTP. It is assumed that existing septic homes will remain on septic systems. Pole Canyon Trunkline will also convey West Trunkline flows.

For additional details on projected flows to the EMC WWTP, please see the Technical Memorandum Report titled, "EM WWTP Flows and Loads" by AE2S.

Table 6 - ERU's per Trunkline for Build-out

SA	Trunkline	Total Anticipated ERU's at Build-out
SSA	Pony Exp Trunk	9,000
SSA	East Trunk	19,500
SSA	Other	7,900
SSA	Septic	55
WSA	Pole Cyn Trunk*	18,600
WSA	West Trunk	4,100
WSA	Other	4,000
WSA	Septic	48
Total		63,000

To better facilitate the needs of wastewater conveyance and treatment within EMC a new administration building is needed. The estimated cost for this new building, which would be located at the wastewater treatment plant facility, is estimated to be \$12,000,000. As this building would house water as well as wastewater personnel, only 50% of the construction costs would be attributed to wastewater costs. Construction is anticipated to begin in 2026.

BONDS AND REIMBURSEMENTS

EMC has notified JWO Engineering, PLLC with existing bond and agreement information. They are listed below and should be accounted for in impact fee analysis.

Table 7 - EMC Agreement Information

Number	Agreement Name	Description	Balance Remaining
2020-67	Monte Vista Ranch L.C.	42" sewer trunkline	\$ 1,944,791.48

Table 8 - EMC Bond Information

Bond Name and Description	Details	Outstanding principal as of 6/30/2025
Water and Sewer Revenue Bonds 2008	wastewater treatment plant	\$ 1,369,000.00
Water and Sewer Refunding Bonds 2014	57% wastewater portion	\$ 4,939,050.00
Water and Sewer Refunding Bonds 2108-A	57% wastewater portion	\$ 162,450.00

BUDGETING

In order to have funds available for the projects anticipated within the next 5 years, a budget needs to be established. The table below shows the estimated cost each year with inflated costs. While actual construction years and projects may vary, using these costs will help Eagle Mountain City plan for continued growth at an accelerated rate.

Table 9- Annual Budgets

Construction Year	Budget (Millions)
2025	\$ 21.50
2026	\$ 230.92
2027	\$ -
2028	\$ 2.02
2029	\$ -
2030	\$ -
Average Annual Budget	\$ 42.41

RECOMMENDATIONS

It is recommended that EMC update their GIS files to accurately depict the current completed infrastructure of EMC. The GIS files should be kept up to date as new wastewater infrastructure is added to EMC. Efforts should also be made to update the existing GIS files to reflect actual elevations and pipe diameters as new pipes and infrastructure are added to the system. A budget of \$2,000/year is included in the EMC Wastewater fees.

As mentioned above, it is recommended that EMC keep record of how many ADU's are added to their system so that it can be included in the next IFFP.

Improvement projects to be completed within the next 5 years are shown in the tables below.

Table 10 - Next Five Years Collection Project Estimates

Collection Improvement Project	2026 Estimate (Millions)
Ranches Upsize	\$ 1.80
East Trunkline	\$ 21.50
West Trunkline	\$ 12.14
Pole Canyon Trunkline	\$ 15.92
Steeplechase LS Upgrade	\$ 0.20
Total for next 5 years	\$ 51.56

Table 11 - Next Five Years Treatment Project Estimates

Treatment Improvement Project	2026 Estimate (Millions)
WWTP 6 MGD Expansion	\$ 188.00
Treated Water Disposal	\$ 13.80
Total for next 5 years	\$ 201.80

Table 12 - Next Five Years EMC Wastewater Project Estimates

EMC Wastewater Project	2025 Estimate (Millions)
Administration Building	\$ 6.00
Annual GIS updates (5yr)	\$ 0.01
Total for next 5 years	\$ 6.01

The estimated average annual budget is nearly \$42.5 million for the collection, treatment and EMC wastewater improvement projects. The construction and costs will be necessary in the next year so the average is not representative of how the funding will be needed. JWO Engineering, PLLC recommends that Eagle Mountain City break the treatment plant and treated water disposal costs out due to the size of those items. 6 MGD with an ERU of 220 gal/day should provide for an additional 27,000 ERU's. An impact fee cost for treatment improvement projects would be in the \$34 per gallon range or \$7400 per ERU. The treatment portion of the fee would account for the treatment costs and treated water disposal and the impact fee for the other wastewater improvements should be evaluated based on the number of units anticipated to be completed in each service area vs the costs for the infrastructure. Annual GIS updates and the administration building costs would be applied to each household connected to EMC wastewater system. The annual budget for all costs other than the treatment plant would be \$11 million.



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It is recommended that within 5 years Eagle Mountain City re-evaluate the wastewater improvement needs as well as anticipated construction years and costs.