Board of County Commissioners
Hearing Date: October 15, 2025
Canyon County Development Services Department

PLANNING DIVISION STAFF REPORT

CASE NUMBER: **OR2025-0013**

APPLICANT/REPRESENTATIVE: **City of Parma**

ANALYST: **Michelle Barron, Amber Lewter, & Arbay Mberwa**

REQUEST:

The applicant, City of Parma, requests an ordinance update to comply with State Law 67-6526, by reducing the Area of Impact on all sides.

PUBLIC NOTIFICATION:

Full Political Notice:	**August 21, 2025**
Public Notification:	**August 20, 2025**
Newspaper Notice published on:	**August 27, 2025**

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1. BACKGROUND:

The Idaho State Statute 67-6526 regarding Area of Impact for cities within the counties was updated with the 2024 Idaho State Legislature. Each city was directed to work with the county jurisdiction to either confirm the current Area of Impact, expand the Area of Impact or reduce the size of the Area of Impact based on meeting five (5) criteria that were put in place with the updated State Statute. Canyon County has worked with each city to bring forward at public hearing the evidences to support their requested Area of Impact. A deadline for compliance with the updated Idaho Code 67-6526 is December 31, 2025.

In 2024, Idaho State Statute 67-6526 regarding Areas of Impact for cities within the counties was updated. It states: "The legislature finds that areas of impact are properly under the jurisdiction of the county because the elected representatives of citizens in areas of impact are county officials, not city officials. While cities should receive notice of, and may provide input on, applications brought to the county in an area of impact, cities do not govern or control decisions on those applications. County commissioners make the final determination regarding area of impact boundaries within their county."

"An area of impact is where growth and development are expected to occur. Areas of impact should be planned for growth and development and should not be used to stop growth and development that conforms to applicable plans and ordinances. Areas of impact should be established, modified, or

confirmed based on the ability and likelihood of a city or cities to annex lands within that area of impact in the near future."

"Counties and cities shall review their area of impact boundaries at least every five (5) years to determine if modifications are needed or to confirm existing boundaries and may pursue modification of an established area of impact more frequently than every five (5) years." See **Exhibit B1** for details on the state law.

Each city was directed to work with the county jurisdiction to either confirm the current Area of Impact or update the Area of Impact based on meeting five (5) criteria that were put in place with the updated State Statute. Canyon County has worked with each city to bring forward at public hearing the evidences to support their requested Area of Impact. A deadline for compliance with the updated Idaho Code 67-6526 is December 31, 2025.

City of Parma provided a letter of intent regarding the proposed area of impact boundary and a proposed area of impact boundary map on August 19, 2025 (**Exhibit A1 and A2**). Evidence was provided by the City of Parma prior to the materials deadline that can be found in **Exhibit A4** and a Power Point presentation in **Exhibit A5.**

2. HEARING BODY ACTION:

OPTIONAL MOTIONS:

Approval of the Application: "I move to approve OR2025-0013, City of Parma, finding the application **does** meet the required criteria for approval under State Law 67-6526**, finding that**: [*Cite reasons for approval*].

Denial of the Application: "I move to deny OR2025-0013, City of Parma finding the application **does not** meet the criteria for approval under State Law 67-6526, **finding that** [*cite findings for denial based on the express standards outlined in the criteria & the actions, if any, the applicant could take to obtain approval (ref.ID.67-6519(5)*].

Table the Application: "I move to continue OR2025-0013, City of Parma, to a [*date certain or uncertain*]

3. HEARING CRITERIA

Table 1. Ordinance Criteria Analysis

HEARING CRITERIA (CCCO §07-06-01(4)B) - Zoning Ordinance Changes: If an amendment to a zone or zone boundary is approved, then the approved amendment shall be effective immediately upon written approval and shall be established and clearly indicated, as soon as practicable, on the zoning map or maps adopted as part of this chapter. The board shall, when considering an application for an amendment to the zoning ordinance, consider the comprehensive plan and other evidence gathered through the public hearing process.
Idaho Code §67-6511(2)(c): The governing board shall analyze proposed changes to zoning ordinances to ensure that they are not in conflict with the policies of the adopted comprehensive plan. If the request is found by the governing board to be in conflict with the adopted plan, or would result in demonstrable adverse impacts upon the delivery of services by any political subdivision providing public services, including school districts, within the planning jurisdiction, the governing board may require the request to be submitted to the planning or planning and zoning commission or, in absence of a commission, the governing board may consider an amendment to the comprehensive plan pursuant to the notice and hearing procedures provided in section 67-

6509, Idaho Code. After the plan has been amended, the zoning ordinance may then be considered for amendment pursuant to paragraph (b) of this subsection.				
Compliant			**County Ordinance and Staff Review**	
Yes	**No**	**N/A**	**Code Section**	**Analysis**
			CCCO §07-06-01(4)B (Idaho Code §67-6511(2)(c)	**Is the amendment generally in conformance with the comprehensive plan?**
☒	☐	☐	***Staff Analysis***	The proposed area of impact is generally in conformance with the 2030 Comprehensive Plan. The 2030 Comprehensive Plan acknowledges that Area of City Impact boundaries exist around cities in the County where city's may grow and annex (Page 25 of the 2030 Comp. Plan). Per A4.04.02a, the county should evaluate and update the area of impact agreements with the cities as the state statute requires. Expansion or reduction to an area of city impact should consider the city's trade area, geographic factors, water and sewer service areas, and areas that can reasonably be expected to be annexed to the city in the future (Page 25 of the 2030 Comp. Plan). The proposal aligns with the following goals, policies, and actions of the 2030 Comprehensive Plan: <u>Chapter 1: Property Rights Goals and Policies</u> **P1.01.03** Ordinances and land-use decisions should avoid imposing unnecessary conditions or procedures on development approvals. <u>Chapter 2: Population Goals and Policies</u> **G2.01.00** Incorporate population growth trends & projections when making land-use decisions. **P2.01.01** Plan for anticipated population and households that the community can support with adequate services and amenities. <u>Chapter 3: Economic Development Goals and Policies</u> **G3.01.00** Promote a healthy and sustainable regional economy by retaining, expanding, and recruiting businesses to favorable locations. **P3.01.01** Direct business development to locations that can provide necessary services and infrastructure. **P3.01.02** Support suitable sites for economic growth and expansion compatible with the surrounding area.

				G3.05.00 Support a diverse economy in Canyon County and recognize that residential, commercial, and industrial uses are necessary components of overall economic stability**.** <u>Chapter 4: Land Use and Community Design Goals, Policies & Actions</u> **A4.01.01b** Coordinate land-use planning with adjoining counties, cities, and other agencies and groups. **P4.01.01** Maintain a balance between residential growth and agriculture that protects the rural character. **P4.02.01** Consider site capability and characteristics when determining the appropriate locations and intensities of various land uses. **G4.04.00** Concentrate future higher density residential growth in appropriate areas in and around existing communities while preserving and enhancing the County's agricultural and rural character. **P4.04.01** Support development in locations where services, utilities, and amenities are or can be provided. (may delete) **P4.04.02** Align planning efforts in areas of city impact. **A4.04.02a** Evaluate and update area of impact agreements with the cities as the state statute requires. Expand or reduce areas of city impact according to each city's trade area, geographic factors, water and sewer service areas, and areas that can reasonably be expected to be annexed to the city in the future. Idaho Code § 67-6526(b). **A4.04.02b** Coordinate County and city planning through collaborative planning processes, mutual agreements, and updated impact area agreements. <u>Chapter 7: Public Services, facilities and Utilities Goals and Policies</u> **G7.01.00** Endeavor to continue providing reliable public services, public safety facilities, & public utilities that support existing developed areas and future growth. **P7.01.02** Encourage annexations within city impact areas where municipal services can be provided. <u>Chapter 8: Transportation Goals and Policies</u> **P8.01.01** Coordinate land use and transportation planning to locate development near appropriate transportation corridors and services. <u>Chapter 12: Agriculture Goals and Policies</u>

				P12.01.02 Encourage non-agricultural related development to the cities, areas of city impact, and other clearly defined and planned development areas.
☒	☐	☐	**Idaho Code §67-6511(2)(c)**	**The amendment shall not result in demonstrable adverse impacts upon the delivery of services by any political subdivision providing public services, including school districts, within the planning jurisdiction.**
			Staff Analysis	A political subdivision is "a county, city, school district, highway district, irrigation district, fire district, or other district recognized by the Idaho Code (CCCO §07-02-03)." A full political notice was sent to Parma School District, Parma Fire, Notus – Parma Highway District #2, Idaho Transportation District, Farmers Cooperative Ditch Company, and on August 21, 2025. No comments were provided by the materials deadline. The requested reduction in Area of Impact by the City of Parma is not anticipated to adversely impact the delivery of services by any political subdivision providing public services, including school districts, within the planning jurisdiction.

Table 2. Areas of Impact Criteria Analysis

HEARING CRITERIA (Idaho Code §67-6526(3) - Modification or confirmation of area of impact boundaries: Any modifications to or confirmation of an area of impact boundary must be adopted by an ordinance approved by the board of county commissioners of the applicable county, following the notice and hearing procedures provided in section 67-6509, Idaho Code, and in accordance with the requirements for defining an area of impact as set forth in subsection (4) of this section.

(4) Provisions applicable to areas of impact.

(a) In defining an initial area of impact or in modifying or confirming an existing area of impact, the criteria set forth in this subsection shall be considered:

Compliant			County Ordinance and Staff Review	
Yes	**No**	**N/A**	**Code Section**	**Analysis**
			67-6526(4)(a)(i)	**Anticipated commercial and residential growth.**
☒	☐	☐	***Staff Analysis***	The City of Parma is anticipating moderate commercial and residential growth in the proposed area of impact. The city has proposed a reduced Area of Impact that directs the city's growth into areas that are just past the current city boundaries. **(Exhibit A2)** The presentation materials state that Idaho is experiencing rapid growth. According to the Department of Labor News Release dated March 14, 2025, Canyon County had a 3.1% increase of 8,150 persons in 2024. **(Exhibit 4.2)** In the spring of 2025, the City of Parma annexed approximately 18.76 acres adjacent to city limits to the south of the city intended for commercial growth. **(Exhibit A5, page 12)**

				City Staff has met with potential developers and taken phone calls from private property owners regarding areas adjacent to the city limits and within the proposed Area of Impact to be developed in the future during the summer of 2025. Potential development would include residential neighborhoods, community parks and light industrial areas. **(Exhibit A5, page 13)** Parma has projects in the works for Develop Community Economic Plans, update Zoning Ordinances/Codes, update Sewer Treatment Facility, ypdate Water System, continue to work on the Transportation Master Plan. **(Exhibit A5, page 15)**
☒	☐	☐	**67-6526(4)(a)(ii)**	**Geographic factors.**
			Staff Analysis	Highway 95 and the Union Pacific Railroad runs through the City of Parma and through portions of the proposed Area of Impact. The Southern portion of the City limits and the Southern portion of the proposed AOI has floodplain areas from the Parma Drain. **(Exhibit B2.1)** The City of Parma's proposed area of impact is relatively flat. (**Exhibit B2.7**). The soils in the proposed area of impact have primarily class 3 soils (Moderately-Suited) and land of statewide importance if irrigated and reclaimed of excess salts and drained. (**Exhibit B2.5**). There are no geographic factors that would prohibit the growth that is proposed in the Area of Impact update. Floodplain measures would be in effect per State and City code in the areas where there is an existing floodplain. Although the area is an agricultural community, the proposed Area of Impact would not hinder the continuation of the agriculture in the area.
☒	☐	☐	**67-6526(4)(a)(iii)**	**Transportation infrastructure and systems, including connectivity;**
			Staff Analysis	The City of Parma adopted its Transportation Master Plan (TMP) in August 2024 (**Exhibit A4.8**). The main thoroughfare in Parma is State Highway 95 (Grove Street as it passes through the city) and runs through the center of the city in the northeast/northwest direction. Grove Street (Hwy 95) connects US 20/26 to the City of Notus. Highway 20/26 turns into Highway 95 as it enters into the Parma area. **(Exhibit A4.8 and A2)** Interstate 84 is approximately 13 miles North on Highway 95 near Fruitland, Idaho. The City of Parma's road system is overseen by the city's Public Works Department. Beyond the city limits, the Notus-Parma Highway District has the jurisdiction over the road system and provides shared maintenance areas like Parma and Walker Roads. (**Exhibit A4.8**). Notus-Parma Highway District and ITD were notified on August 21, 2025. No comments were received (**Exhibit C1**).

				In addition to roadways, the City of Parma has a small pathway for walkability between the elementary and middle schools as well as areas that have sidewalks. **(Exhibit A4.8, page 28)** The city has a lit and paved landing strip with hangers as an airport. The city is also currently working on an Airport Master Plan with the Department of Transportation and the Bureau of Aeronautics. **(Exhibit A5, page18)** With Highway 95 running through Parma, as well as the Transportation Master Plan that speaks to continued growth and maintenance of roadways, staff finds this criterion can be met.
☒	☐	☐	**67-6526(4)(a)(iv)**	**Areas where municipal or public sewer and water are expected to be provided within five (5) years.**
			Staff Analysis	The City of Parma anticipates providing municipal water and sewer to the proposed area of impact within the next five (5) years. **Water:** The City of Parma Water Master Plan was created in 2023 and is consistently being reviewed and updated as projects are identified, funded and completed. The Plan indicates DRAFT due to a civil lawsuit. (**Exhibit 4.6, page 19**). According to the Letter of Intent, **Exhibit A1**, it is very important to the City of Parma to have development pay for itself and have a proportionate share of infrastructure development provided by developers. **Sewer:** The City of Parma has judicial confirmation to update and expand the Sewer Treatment Facility. In 2025, a Wastewater Treatment Plant Facility Plan was created. The most recent wastewater treatment facility update is in the process of being completed. Six million dollars is currently budgeted for FY25/26. **(Exhibit A5, page 20)** The update to the plant would remedy the current fail that has been noted by DEQ. The update will include room for expansion into the proposed Area of Impact.
☒	☐	☐	**67-6526(4)(a)(v)**	**Other public service district boundaries.**
			Staff Analysis	**School Facilities:** The City of Parma works with the Parma School District when a proposed development is submitted, assuring that the school has an opportunity to comment. **(Exhibit A5, page 22)** According to Canyon County's School District Map, Parma School District currently serves the proposed area of impact (**Exhibit B4.2**). The Parma School District was notified on August 21, 2025, no comments were received by the comment deadline of September 26, 2025. It's not anticipated that Parma School District will be negatively impacted by the requested area of impact boundary. **Police/Fire/Emergency:** The City of Parma works with Parma Rural Fire District on developments, continuing to ensure adequate fire flow and hydrant placements. The city

				strives to ensure safety of their collective citizens and fire fighter safety by applying appropriate densities in developments. (**Exhibit A5, Page 21)** The City of Parma Police Department supports safety in the community and provides a School Resource Officer to the Parma School District. The City of Parma Police Department also provides contracted Police Services to the City of Notus. **(Exhibit A5, page 26)** The City of Parma Police Department and the Wilder Police Department provide mutual aid when needed. The City's Police Department routinely provides response to rural Canyon County until Canyon County Deputies can safely arrive. **(Exhibit A5, page 27)**
☒	☐	☐	**67-6526(4)(b)**	**In addition to the criteria set forth in paragraph (a) of this subsection, an area of impact shall not exceed the areas that are very likely to be annexed to the city within the next five (5) years. Except as otherwise provided in this paragraph, an area of impact shall not extend more than two (2) miles from existing city limits. An area of impact boundary shall not divide county recognized parcels of land. If only a portion of a recognized parcel falls within the two (2) mile limit, then the boundary may extend beyond two (2) miles on that parcel so that it encompasses the entire parcel. Adjustments to an area of impact may be proposed and considered at any time following the initial establishment of the area of impact.**
			Staff Analysis	The City of Parma's proposed Area of Impact does not exceed two miles outside of Parma city limits. The requested Area of Impact reaches approximately 1/2-mile from the city limits. (**Exhibit A2**) The proposed area of impact encompasses full parcels. If the City of Parma wishes to adjust the area of impact the city shall do so in accordance with Idaho State Law 67-6526 and Canyon County Code of Ordinance.
☐	☐	☒	**67-6526(4)(c)**	**Areas of impact may cross county boundaries only by approval of the governing board of county commissioners after following the procedures and complying with the requirements for modification or confirmation of an area of impact boundary.**
			Staff Analysis	The proposed impact area does not cross county boundary lines (**Exhibit A2**).
☒	☐	☐	**67-6526(4)(d)**	**Areas of impact shall not overlap.**
			Staff Analysis	The proposed impact area does not overlap with a neighboring city's area of impact (**Exhibit A2**).

4. AGENCY COMMENTS:

A full political was sent out to all of Canyon County's partner agencies on August 21, 2025, notifying them of the subject application. See the full list of agencies notified in **Exhibit C1**.

Staff received an agency comment from The Idaho Department of Environmental Quality (DEQ). All agency comments received by the aforementioned materials deadline are located in **Exhibit C**.

Pursuant to Canyon County Ordinance 01-17-07B Materials deadline, the submission of late documents or other materials does not allow all parties time to address the materials or allow sufficient time for public review. After the materials deadline, any input may be verbally provided at the public hearing to become part of the record.

5. PUBLIC COMMENTS:

Public notice was not required to be mailed to property owners because there were no proposed changes to the established area of impact; therefore, there were no property owners who may be affected by the proposed area of impact. A newspaper notice was published on August 27, 2025, notifying of the subject application.

Staff received three (3) total written public comment by the materials deadline of September 26, 2025. The comments received, were, two (2) in opposition and one (1) seeking clarification, which staff provided. One (1) additional comment was received prior to October 6, 2025 (10 days prior to hearing). All public comments received by the aforementioned materials deadline are located in Exhibit D.

Pursuant to Canyon County Ordinance 01-17-07B Materials deadline, the submission of late documents or other materials does not allow all parties time to address the materials or allow sufficient time for public review. After the materials deadline, any input may be verbally provided at the public hearing to become part of the record.

6. SUMMARY & RECOMMENDATION:

In consideration of the application and supporting materials, staff concludes that the proposed zoning ordinance map amendment is **compliant** with Idaho State Law §67-6526, and the impact boundary should be adopted as seen in Exhibit A2. A full analysis is detailed within the staff report.

7. EXHIBITS:

A. Application Packet & Supporting Materials

1. Letter of Intent
2. Proposed Area of Impact Map
3. Scheduling Letter
4. Support Documents
   - 4.1 Census Bureau Profile
   - 4.2 Growth Area
   - 4.3 Parma Fire Boundary 2021 Map
   - 4.4 Old Future Land Use Map
   - 4.5 Parma School District Zone Maps
   - 4.6 City of Parma Draft Water Master Plan Appendix A – Water Service Area
   - 4.7 Approval City of Parma Wastewater Treatment Plant Facility Plan
   - 4.8 City of Parma Transportation Master Plan
   - 4.9 Parma Area of Impact Resolution
5. Power Point Presentation

B. Supplemental Documents

1. State Law 67-6526
2. Case Maps/Reports
   - 2.1. FEMA Small Air Photo
   - 2.2. Zoning & Classification Map
   - 2.3. Subdivision Map & Report
   - 2.4. Dairy, Feedlot, & Gravel Pit Map
   - 2.5. Soil Map
   - 2.6. Prime Farm Land Map

2.7. TAZ Household Map
2.8. TAZ Job Map
2.9. Slope Map
2.10. Future Land Use Map
2.11. City of Parma – Two Mile Buffer Map

3. Canyon County Comprehensive Plan 2030 Maps
   3.1. Fire Districts Map
   3.2. School Districts Map

C. Agency Comments Received by: September 26, 2025

1. Full Political Notice sent August 21, 2025
2. DEQ; Received: August 25, 2025

D. Public Comments Received by: September 26, 2025

1. Patricia Rohwer; Received: September 22, 2025
2. Anonymous; Received: September 22, 2025
3. Growing Together, George Crookham; Received: September 26, 2025

Public Comments Received by: October 6, 2025 (10 days prior to hearing)

4. Growing Together, Keri Smith; Received: October 2, 2025

EXHIBIT A

Application Packet & Supporting Materials

Exhibit A1

City of Parma 305 N. 3rd Street
P.O. Box 608 Parma, Idaho 83660
208-722-5138

August 19, 2025

Canyon County Commissioners
ATTN: Michelle Barron
Email: AOIUPDATE@CANYONCOUNTY.ID.GOV
RE: Parma Area of Impact

This letter is to serve as the Letter of Intent from the City of Parma for the Area of Impact. Parma is not proposing to increase its current Area of Impact but reduced it to meet the current Idaho Code 67-6526.

The City Council, City Attorney and City Staff have reviewed the proposed reduced Area of Impact we submitted (also attached for reference) and has confirmed the following:

1. The proposed Area of Impact is reflective of the areas where growth and development is currently happening and where growth and development is expected to continue over the next five years. We have been in discussions with some property owners and developers on properties adjacent and abutting the current city limits over the past few months.
2. The boundaries of the proposed Area of Impact do not exceed two miles outside of the Parma City Limits.
3. The City of Parma have Water, Sewer, Street and other plans in place to supply city services. Additionally, we are working on an update to our Comprehensive Plan. The City of Parma has also adopted an informal policy to encourage development to pay for itself by extending or creating services to be deeded to the city upon annexation and development.
4. Regarding trade and commerce, the residents on this end of the county, as far north as I-84 associate themselves with the City of Parma as this is their community and choose to do trade in Parma, utilizing the roadways to get to the City of Parma, whether they are State, County or Local.
5. There is not Area of Impact overlap with the surrounding municipalities, however, we wish to work with them an Canyon County to curtail urban sprawl between the communities and ask the county consider growth and development patterns between the communities to ensure the Health, Safety and Sanitation of those areas as they relate specifically.

City of Parma 305 N. 3rd Street
P.O. Box 608 Parma, Idaho 83660
208-722-5138

6. The City of Parma reviewed the following factors to help confirm the boundaries for the proposed Area of Impact. The following factors were considered:
    a. **Geographical** - Proximity to the Boise & Snake Rivers
    b. **Geographical** - Proximity to Payette County
    c. **Geographical** - Proximity to the Oregon Border
    d. **Transportation Infrastructure Systems** – Highway 95
    e. **Transportation Infrastructure Systems** – Highway 26 (Anderson Corner)
    f. **Transportation Infrastructure Systems** – Notus/Parma Highway District
    g. **Historical or Sites of Interest** – Old Fort Boise Historical Site Wildlife Management Area
    h. **Historical or Sites of Interest** –Fort Boise Wildlife Management Area
    i. **Historical or Sites of Interest** – Fort Boise & Riverside Ferry
    j. **Historical or Sites of Interest** – Roswell Area
    k. **Other Public Service District Boundaries** – Parma Fire District
    l. **Other Public Service District Boundaries** – Parma School District
    m. **Other Public Service District Boundaries** – Parma Post Office
    n. **Other Public Service District Boundaries** – Parma Public Library Service Area
    o. **Other Public Service District Boundaries** – Parma Police Department Call Area
    p. **Culture** – strong Agricultural base with large parcels of generational working farms.
    q. **Nerby Attractions** – various wineries and vineyards; and
    r. **Areas where Municipal or Public Sewer & Water** are expected to be provided within five years.

Please find attached the proposed Area of Impact Map Parma Officials submitted. The parcels in Orange or Pink are either already in the City Limits, proposed to be with recent annexations or are part of the reduced Area of Impact.

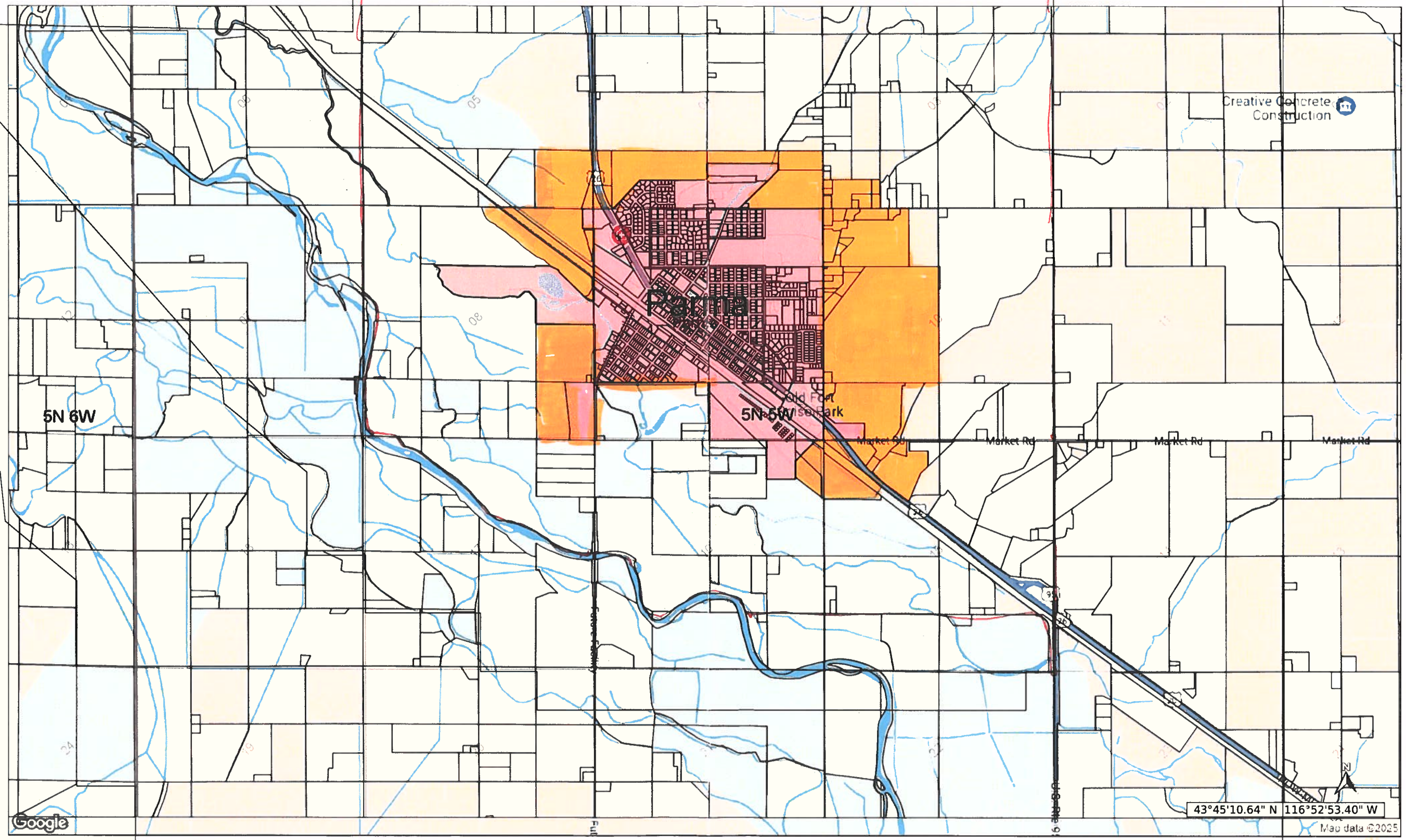
Sincerely,
/s/
Jacob Qualls, City Treasurer / Administrative Assistant
City of Parma

Exhibit A2

landproDATA

landproDATA PDF

Klahr Rd.



Jul 09, 2025 - landproDATA.com
Scale: 1 inch approx 2000 feet

Exhibit A3

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT
111 North 11th Ave., Ste. 310, Caldwell, ID 83605 | Office: 208-402-4164
https://www.canyoncounty.id.gov/elected-officials/commissioners/development-services/

HEARING SCHEDULE

Date: August 21, 2025

Re: **AOI – City of Parma – OR2025-0013**

To the applicant on file:

The above-referenced application has been scheduled for a public hearing. The meeting schedule and materials deadline are listed below:

Board of County Commissioners – Public Hearing: October 15, 2025 at 1:30 pm
Location: Commissioners Meeting Room
(1st floor of Canyon County Courthouse, 1115 Albany Street, Caldwell, ID 83605)

The staff report and exhibits will be posted on the Land Hearings website (https://www.canyoncounty.id.gov/land-hearings/) approximately 7 days prior to the subject hearing.

Materials Deadline: September 26, 2025

The term "materials" broadly refers to any written comments, documents, exhibits, visual presentations, or similar items that are to be transmitted to the presiding party as evidence for review, regardless of format.

In accordance with Canyon County Ordinance §01-17-07(2) all materials to be transmitted to the Presiding Party to be relied on as part of the record must be received by the materials deadline, which shall be at a minimum of ten (10) days prior to the public hearing. Materials received by the deadline will be automatically made a part of the record. This deadline is to provide ample time for inclusion in the staff report packet, hearing body review, full transparency, and access for the public. The submission of late documents or other materials does not allow all parties time to address the material or allow sufficient time for public review.

Presentation:
You should come prepared to present your request before the hearing body and stand for questions. A presentation (PowerPoint, PDF, reference board) brought on the day of the meeting will not be accepted and must be submitted by the aforementioned materials deadline.

As the applicant or representative, you will be presenting your application to the hearing body prior to staff and public testimony. In order to testify you will need to sign in prior to the start of the hearing. Generally, you will be allotted ten minutes to present your application and after all testimony is received, you will be allotted an additional five minutes for rebuttal.

Sincerely,

The AOI Team: Michelle Barron, Arbay Mberwa, and Amber Lewter

Canyon County Development Services Department

Exhibit A4.1

ZIP Code Tabulation Area

ZCTA5 83660

ZCTA5 83660 is a ZIP Code Tabulation Area located in Idaho

// United States / Idaho / ZCTA5 83660

Display Sources

Populations and People
Total Population
6,317
P1 | *2020 Decennial Census*

Income and Poverty
Median Household Income
$60,634
S1901 | *2023 American Community Survey 5-Year Estimates*

Education
Bachelor's Degree or Higher
18.2%
S1501 | *2023 American Community Survey 5-Year Estimates*

Employment
Employment Rate
56.9%
DP03 | *2023 American Community Survey 5-Year Estimates*

Housing
Total Housing Units
2,227
B25002 | *2023 American Community Survey 5-Year Estimates*

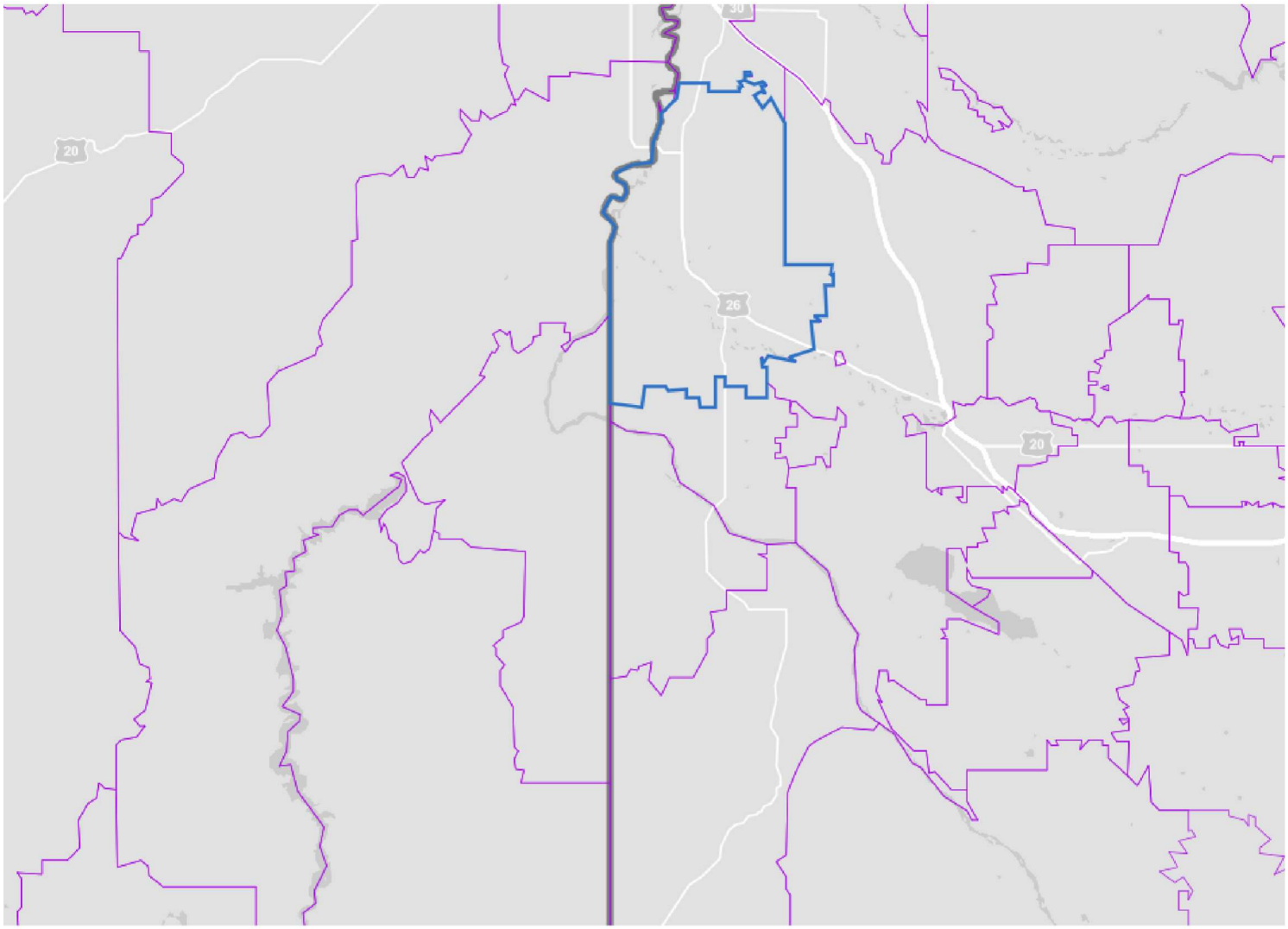
Health
Without Health Care Coverage
16.6%
S2701 | *2023 American Community Survey 5-Year Estimates*

Business and Economy
Total Employer Establishments
117
CB2300CBP | *2023 Economic Surveys Business Patterns*

Families and Living Arrangements
Total Households
2,169
DP02 | *2023 American Community Survey 5-Year Estimates*

Race and Ethnicity
Hispanic or Latino (of any race)
1,202
P9 | *2020 Decennial Census*

ZCTA5 83660 Reference Map



Source: U.S. Census Bureau

Populations and People

Age and Sex

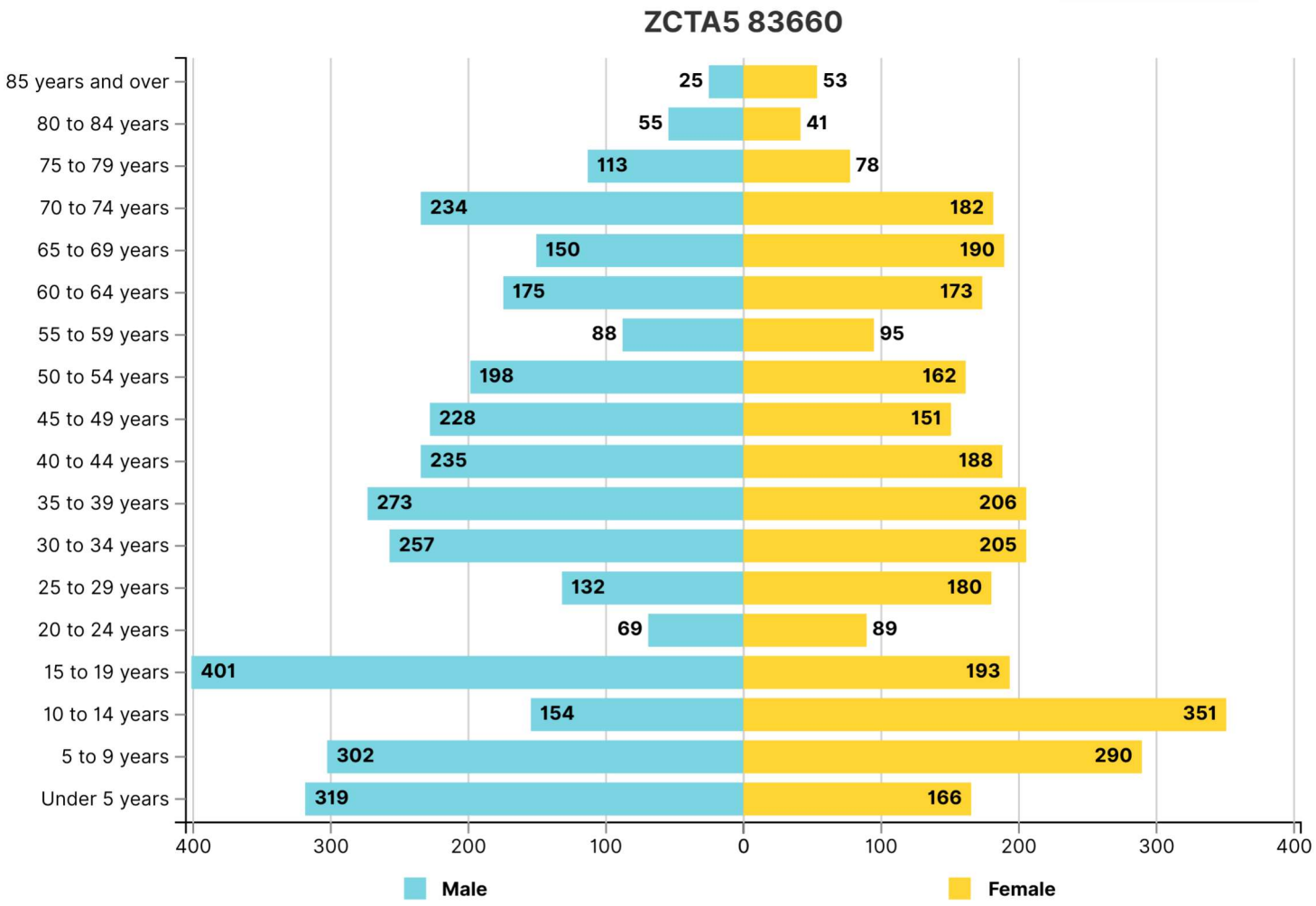
36.1 ± 5.5
Median Age in ZCTA5 83660

37.8 ± 0.2
Median Age in Idaho

S0101 | *2023 American Community Survey 5-Year Estimates*

Population Pyramid: Population by Age and Sex
in ZCTA5 83660

Share / Embed



Display Margin of Error
S0101 | *2023 ACS 5-Year Estimates Subject Tables*

Language Spoken at Home

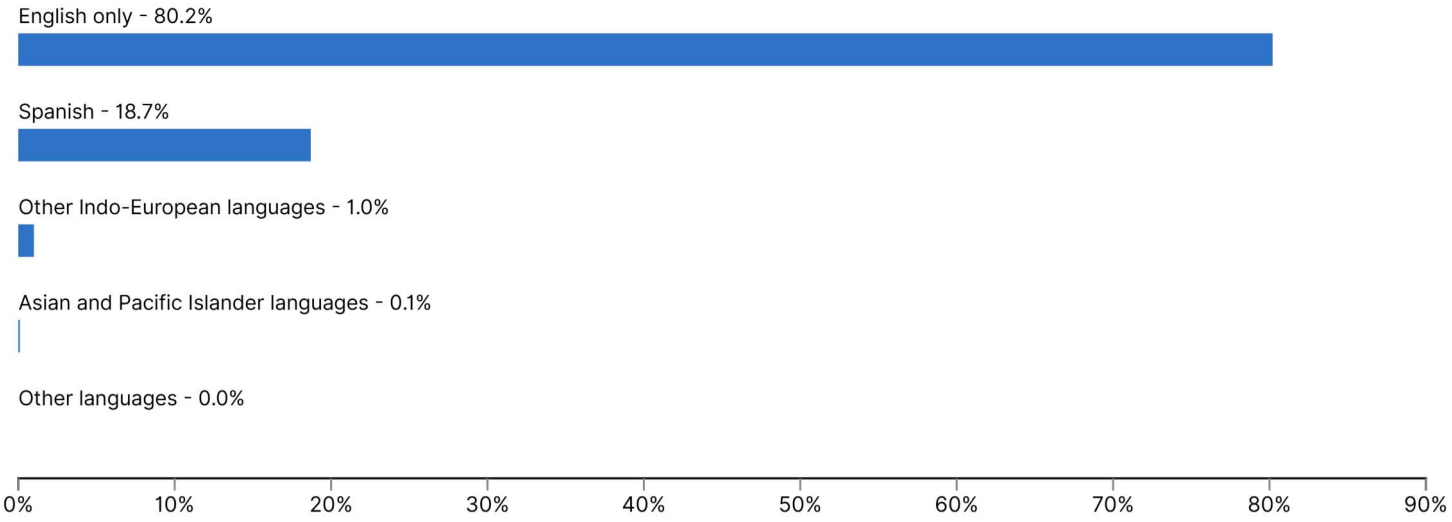
19.8% ± 7.0%
Language Other Than English Spoken at Home in ZCTA5 83660

11.4% ± 0.4%
Language Other Than English Spoken at Home in Idaho

S1601 | *2023 American Community Survey 5-Year Estimates*

Types of Language Spoken at Home
in ZCTA5 83660

Share / Embed



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S1601 | *2023 American Community Survey 5-Year Estimates*

Native and Foreign-Born

8.5% ± 3.3%
Foreign-Born population in ZCTA5 83660

6.3% ± 0.4%
Foreign-Born population in Idaho

DP02 | *2023 American Community Survey 5-Year Estimates*

Foreign-Born Population
in ZCTA5 83660

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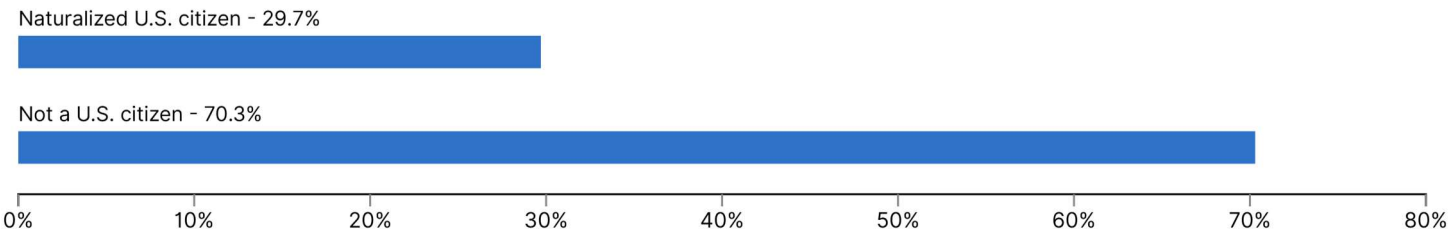

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DP02 | *2023 American Community Survey 5-Year Estimates*

Older Population

17.5% ± 3.9%
65 Years and Older in ZCTA5 83660

17.8% ± 0.1%
65 Years and Older in Idaho

DP05 | *2023 American Community Survey 5-Year Estimates*

Older Population by Age
in ZCTA5 83660

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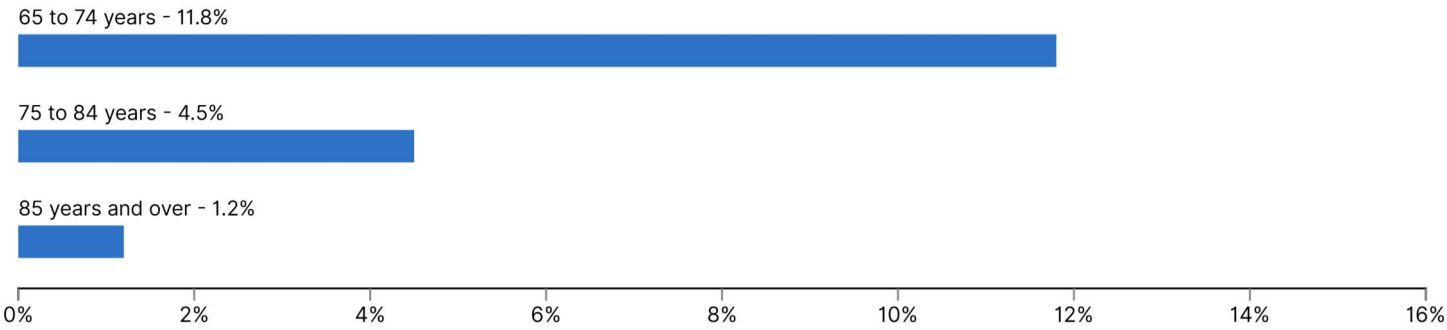

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DP05 | *2023 American Community Survey 5-Year Estimates*

Residential Mobility

2.8% ± 2.4%
Moved From a Different State in the Last Year in ZCTA5 83660

3.7% ± 0.3%
Moved From a Different State in the Last Year in Idaho

S0701 | *2023 American Community Survey 5-Year Estimates*

Residential Mobility in the Last Year
in ZCTA5 83660

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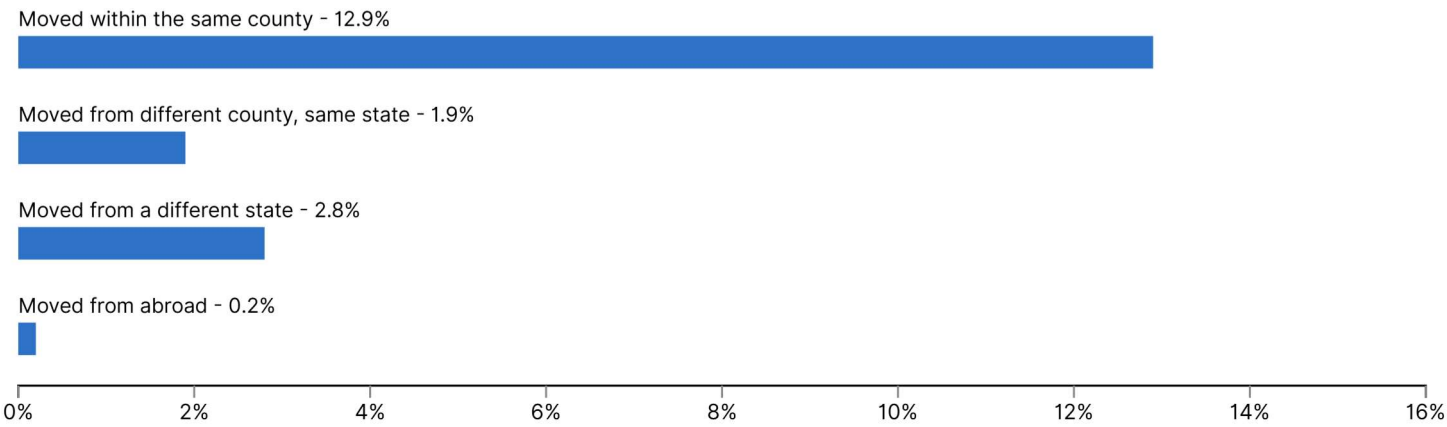

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S0701 | *2023 American Community Survey 5-Year Estimates*

Veterans

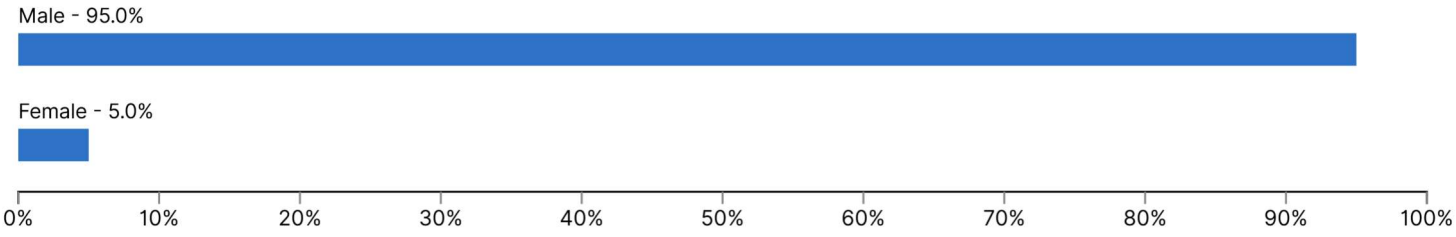
8.0% ± 2.4%
Veterans in ZCTA5 83660

7.4% ± 0.3%
Veterans in Idaho

S2101 | *2023 American Community Survey 5-Year Estimates*

Veterans by Sex
in ZCTA5 83660

Share / Embed



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S2101 | *2023 American Community Survey 5-Year Estimates*

Exhibit 4.2

idaho@work

A blog for Idaho job seekers and employers

Idaho's most populated counties drive state's growth

NEWS RELEASE

IDAHO DEPARTMENT OF LABOR
BRAD LITTLE, GOVERNOR
JANI REVIER, DIRECTOR

For Immediate Release: March 14, 2025
Media Contact: Jan.Roeser@labor.idaho.gov

Idaho's 44 counties grew by 1.5%, or over 30,497 new residents, between July 2023 and July 2024, according to recent U.S. Census population estimates. Higher population counties experienced more growth than rural areas, in line with a nationwide trend of metro areas seeing a resurgence after the COVID-19 pandemic.

During the pandemic, Idaho's growth was more evenly dispersed across less populated rural counties and more populated urban counties.

"The COVID-19 pandemic brought a rush of new residents to Idaho, particularly impacting rural areas of low population density that offered outdoor recreation," said Labor Economist Jan Roeser.

"This growth spurt has reversed in a good portion of Idaho's smaller counties, likely due to the larger population areas having more services to offer the aging populations."

The top 10 most populated counties in Idaho contributed 26,076 new residents to the overall population from July 2023 to July 2024 — an uptick of 30% from the prior year. Only one of these counties – Nez Perce — slowed in pace from 2023.

Combined, the populated counties seen in the table below were responsible for 86% of Idaho's growth in 2024, a jump from the 2023 level of 74.6%.

Rank	Largest counties	2024		
		Estimate	% Change	# Change
Idaho		**2,001,619**	**1.5%**	**30,497**
1	Ada	535,799	1.7%	9,109
2	Canyon	266,892	3.1%	8,150
3	Kootenai	188,323	1.7%	3,086
4	Bonneville	133,644	1.6%	2,169
5	Twin Falls	96,509	1.2%	1,105
6	Bannock	91,010	0.5%	425
7	Madison	55,549	0.8%	426
8	Bonner	53,955	2.4%	1,246
9	Bingham	50,889	1.0%	491
10	Nez Perce	42,847	-0.3%	-131
Total		**1,515,417**		**26,076**
Share of Idaho's growth		**75.7%**		**85.5%**

Twelve counties outpaced the state's growth rate in 2024, including Ada, Adams, Bonner, Bonneville, Boundary, Canyon, Gem, Jefferson, Jerome, Kootenai, Lincoln and Teton.

The largest component of Idaho's robust growth over the past decade has been immigration from other states.

In 2024, net immigration contributed 80% of Idaho's growth, with only a handful of counties experiencing negative net migration — when more residents are moving out than are moving in. Counties with negative net migration include Bear Lake, Butte, Caribou, Clark, Elmore, Madison and Owyhee.

Natural change, or births minus deaths, added only 20% of the population growth in 2024. Counties that experienced negative natural change included Adams, Benewah, Boise, Bonner, Butte, Clearwater, Custer, Gem, Idaho, Lemhi, Lewis, Nez Perce, Shoshone and Washington.

In 2024, nine of Idaho's counties lost population, compared with only two counties in 2023. Those counties that lost residents were mostly smaller in population — excluding Nez Perce — and included Bear Lake, Butte, Clark, Clearwater, Idaho, Lemhi, Lewis and Owyhee.

For more information on U.S. Census releases, visit census.gov/data.

The Idaho Department of Labor has more census data available at lmi.idaho.gov/census.

— end —

This Idaho Department of Labor project is funded by the U.S. Department of Labor for SFY25 as part of a Workforce Information grant (40%) and state/nonfederal funds (60%) totaling $885,703.

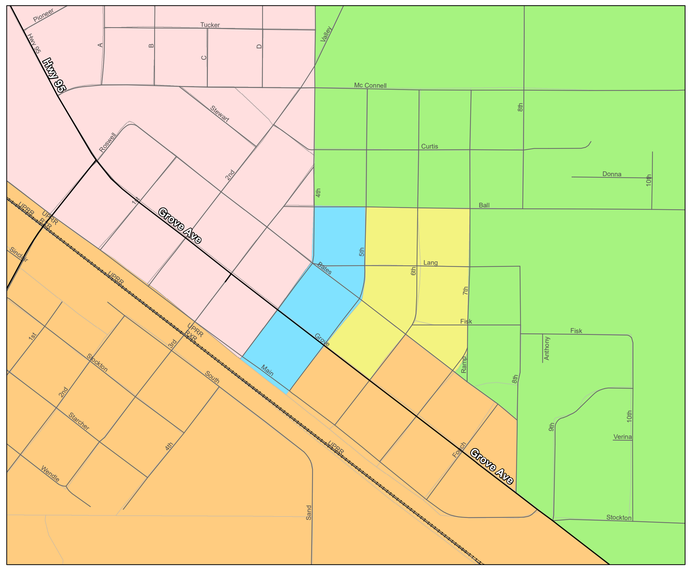
This entry was posted in Labor Market, News Releases and tagged Census, Idaho, Labor economist, Population on March 14, 2025 [https://idahoatwork.com/2025/03/14/idahos-most-populated-counties-drive-states-growth/] by Idaho Department of Labor.

About Idaho Department of Labor

Our vision is to be Idaho's first choice for employment services. We connect job seekers with Idaho employers, deliver employment services to Idaho businesses and support people during career and life transitions.

View all posts by Idaho Department of Labor →

Exhibit A4.3



Parma Fire District

December 2021

Fire Districts

- East
- South
- South-East
- West
- West-East

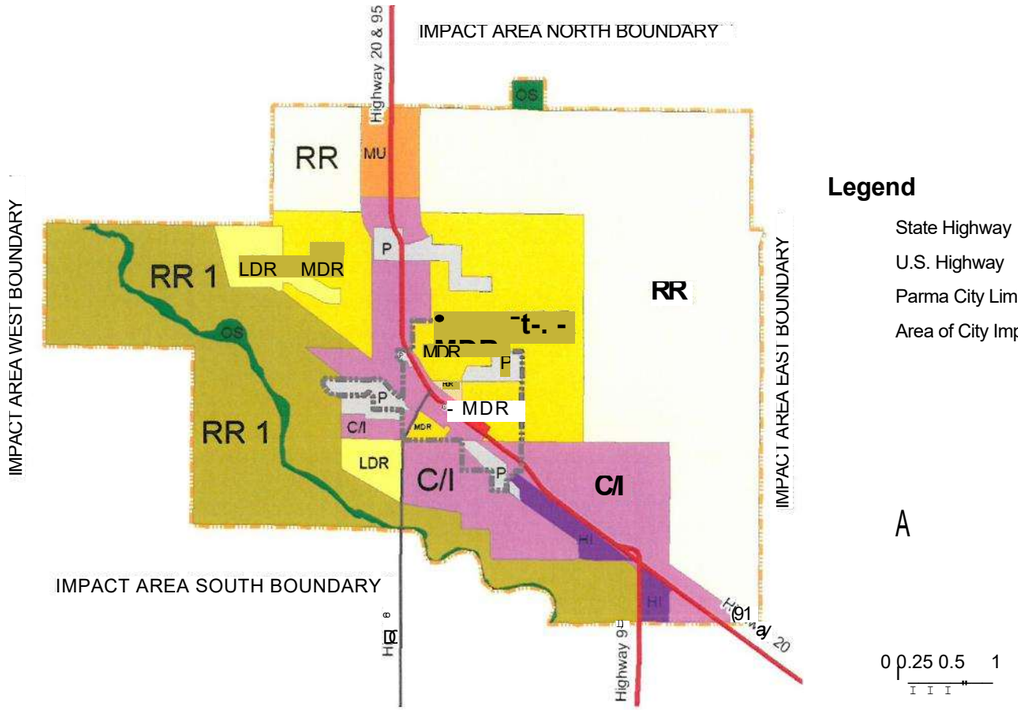
N

0 1 2 4

Miles

Exhibit A4.4

Parma Proposed Future Land Use Designations



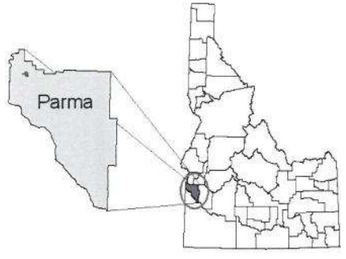
Legend

State Highway
U.S. Highway
Parma City Limits
Area of City Impact

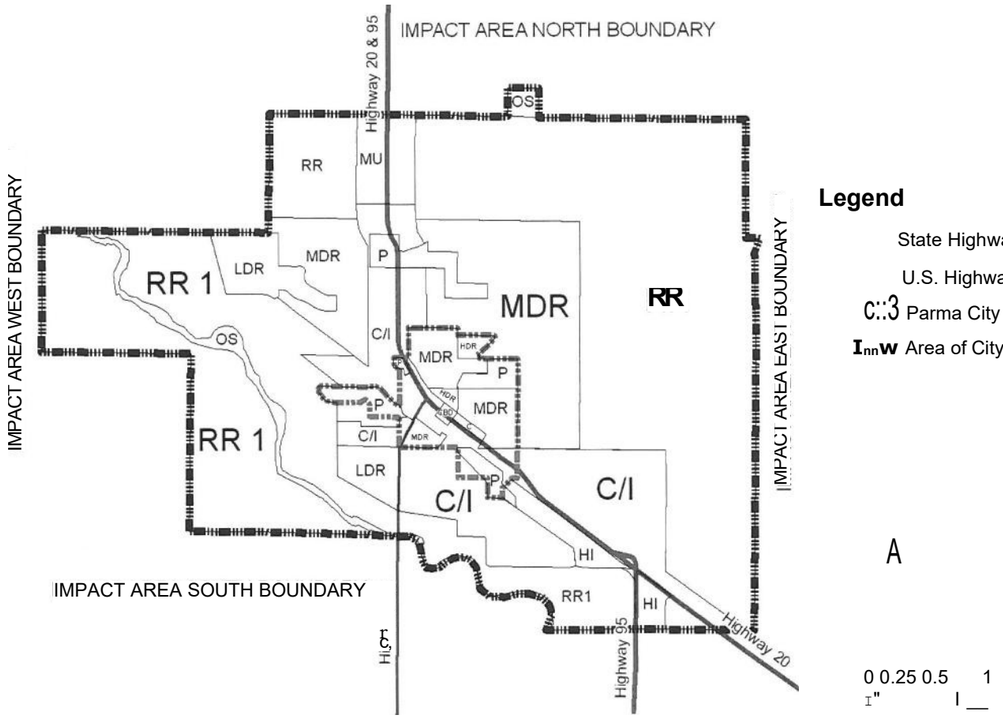
A

Proposed Future Land Use Legend

C	-	Commercial
C/I		Commercial/Industrial
HI		Heavy Industrial
LDR		Low Density Residential
MDR		Medium Density Residential
HDR		High Density Residential
MU		Mixed Use
RR1		Residential Recreational
RR	-	Rural Residential
P	-	Public
OS		Open Space
CBD		Central Business District



Parma Proposed Future Land Use Designations



Legend

State Highway

U.S. Highway

Parma City Limits

Area of City Impact

A

Proposed Future Land Use Legend

C Commercial
C/I - Commercial/Industrial
HI - Heavy Industrial
LDR Low Density Residential
MDR - Medium Density Residential
HDR High Density Residential
MU Mixed Use
RR1 - Residential Recreational
RR Rural Residential
P - Public
OS - Open Space
CDB Central Business District

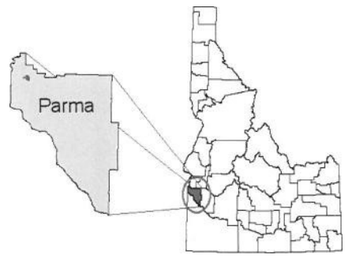
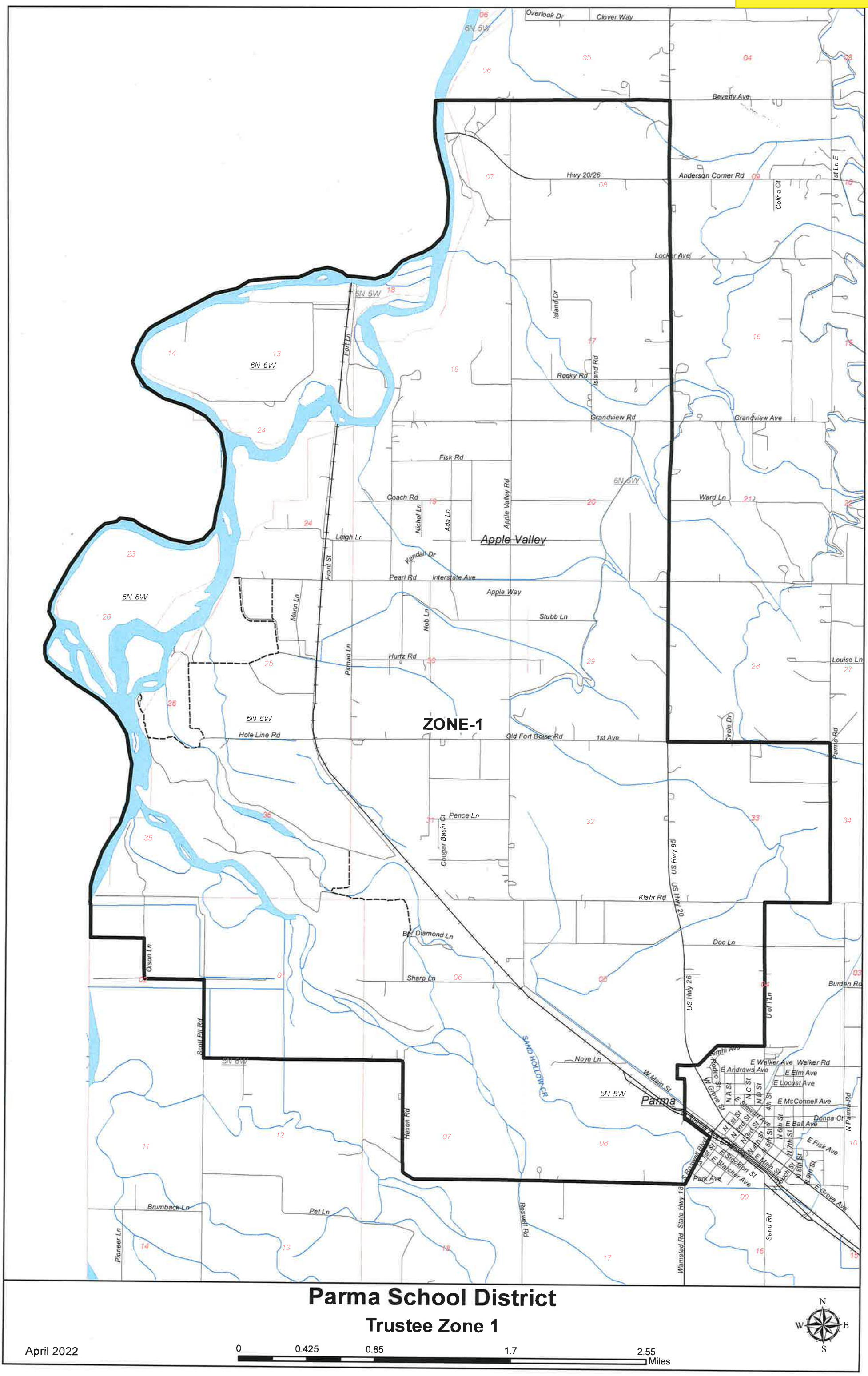


Exhibit A4.5


ZONE-1
Apple Valley
Parma
6N 5W
6N 6W
5N 5W
Overlook Dr
Clover Way
Beverly Ave
Hwy 20/26
Anderson Corner Rd
Colina Ct
1st Ln E
Locker Ave
Island Dr
Island Rd
Rocky Rd
Grandview Rd
Grandview Ave
Fort Ln
Fisk Rd
Coach Rd
Nichol Ln
Ada Ln
Apple Valley Rd
Ward Ln
Leigh Ln
Kendall Dr
Front St
Pearl Rd
Interstate Ave
Apple Way
Mann Ln
Nob Ln
Stubb Ln
Pitman Ln
Hurtz Rd
Louise Ln
Hole Line Rd
Old Fort Boise Rd
1st Ave
Circle Dr
Parma Rd
Pence Ln
Cougar Basin Ct
US Hwy 95
US Hwy 20
Klahr Rd
Bar Diamond Ln
Doc Ln
Olson Ln
Sharp Ln
Scott Plt Rd
Hexon Rd
Noye Ln
SAND HOLLOW CR
W Main St
US Hwy 26
U of I Ln
Burden Rd
E Walker Ave
Walker Rd
E Andrews Ave
E Elm Ave
E Locust Ave
E McConnell Ave
Donna Ct
E Bait Ave
E Fisk Ave
E Stockton St
E Stratton Ave
E Stretcher Ave
Park Ave
E Grove Ave
N Parma Rd
Rodeo St
W Grove St
Warnsted Rd
State Hwy 18
Roswell Rd
Sand Rd
Brumback Ln
Pet Ln
Pioneer Ln
Parma School District
Trustee Zone 1
April 2022
0
0.425
0.85
1.7
2.55
Miles
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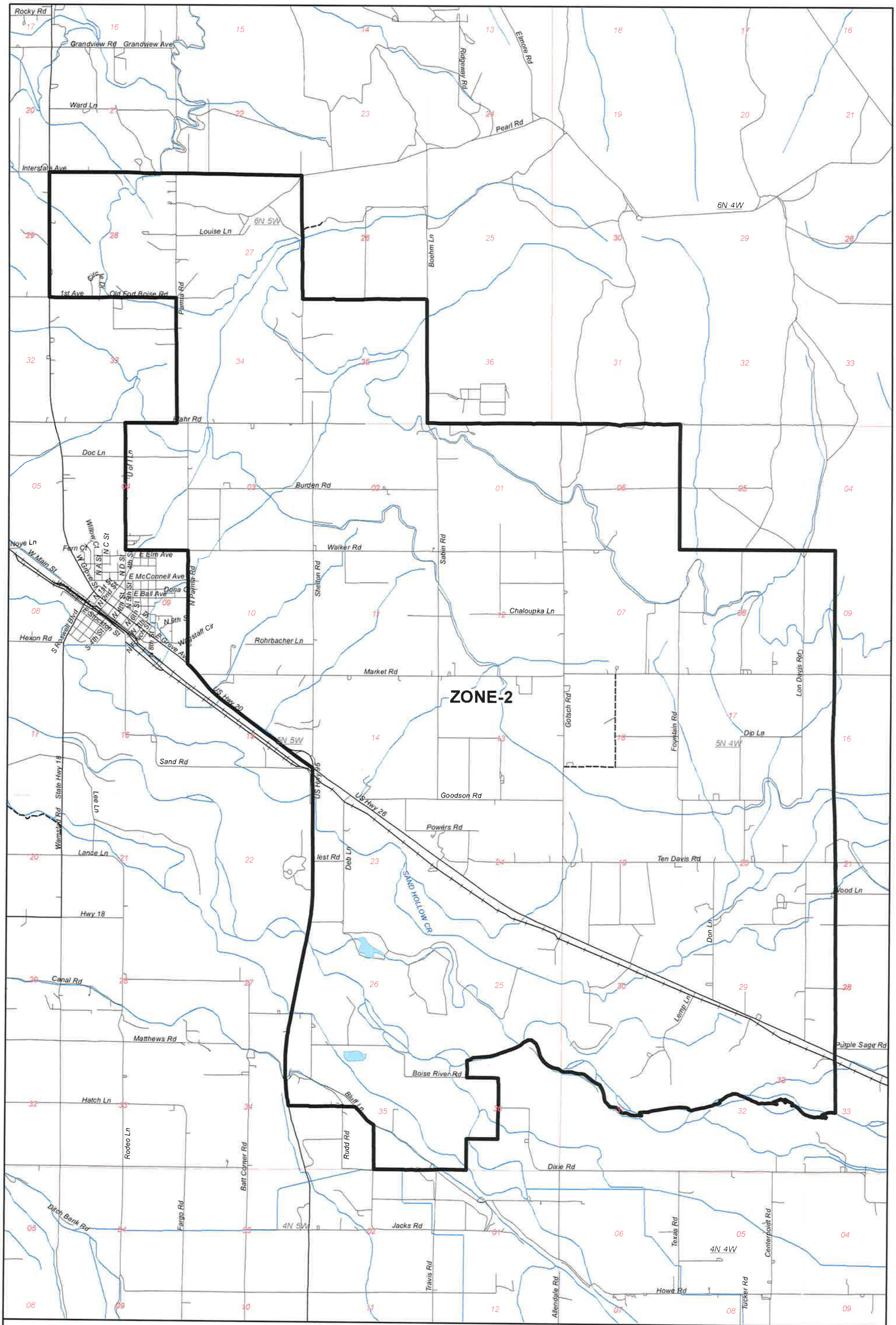
W
E
S


ZONE-2
Rocky Rd
Grandview Rd
Grandview Ave
Ward Ln
Interstate Ave
Pearl Rd
Ridgeway Rd
Elmore Rd
6N 5W
6N 4W
Louise Ln
Boehm Ln
1st Ave
Old Fort Boise Rd
Parma Rd
Bahr Rd
Doc Ln
Burden Rd
Walker Rd
Sabin Rd
Shelton Rd
N Parma Rd
Noye Ln
W Main St
Fern Ct
Willow Ct
E Elm Ave
E McConnell Ave
E Ball Ave
E Grove Ave
Hexon Rd
Rohrbacher Ln
Chaloupka Ln
Market Rd
Lon Davis Rd
Gotsch Rd
Fountain Rd
Dip Ln
5N 5W
5N 4W
Sand Rd
US Hwy 20
US Hwy 26
Goodson Rd
Powers Rd
Ten Davis Rd
Wood Ln
Lee Ln
Lance Ln
Hwy 18
SAND HOLLOW CR
Canal Rd
Matthews Rd
Boise River Rd
Purple Sage Rd
Hatch Ln
Rodeo Ln
Fargo Rd
Ditch Bank Rd
Jacks Rd
Dixie Rd
Howe Rd
4N 5W
4N 4W
Parma School District
Trustee Zone 2
April 2022
0
0.5
1
2
3
Miles
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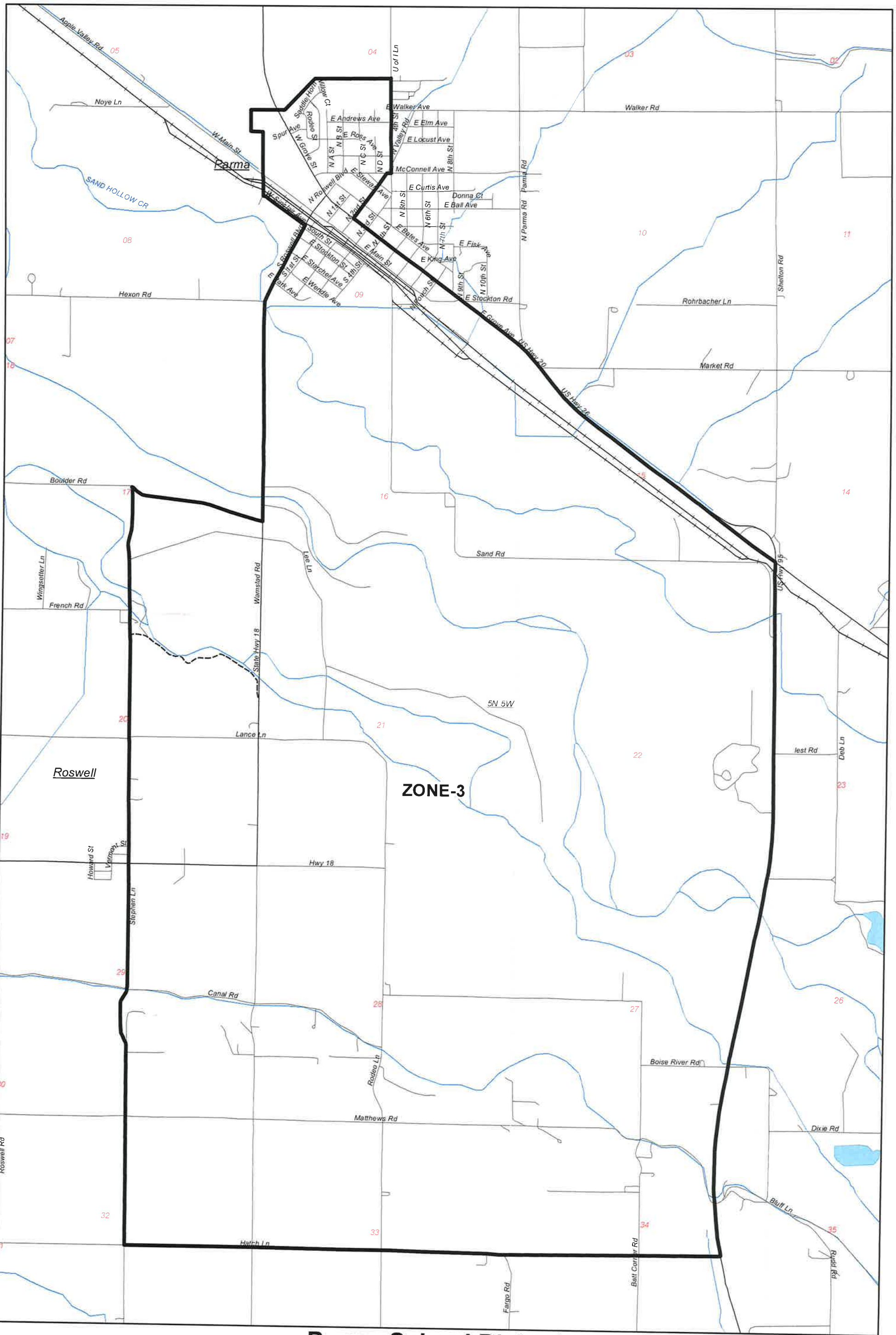


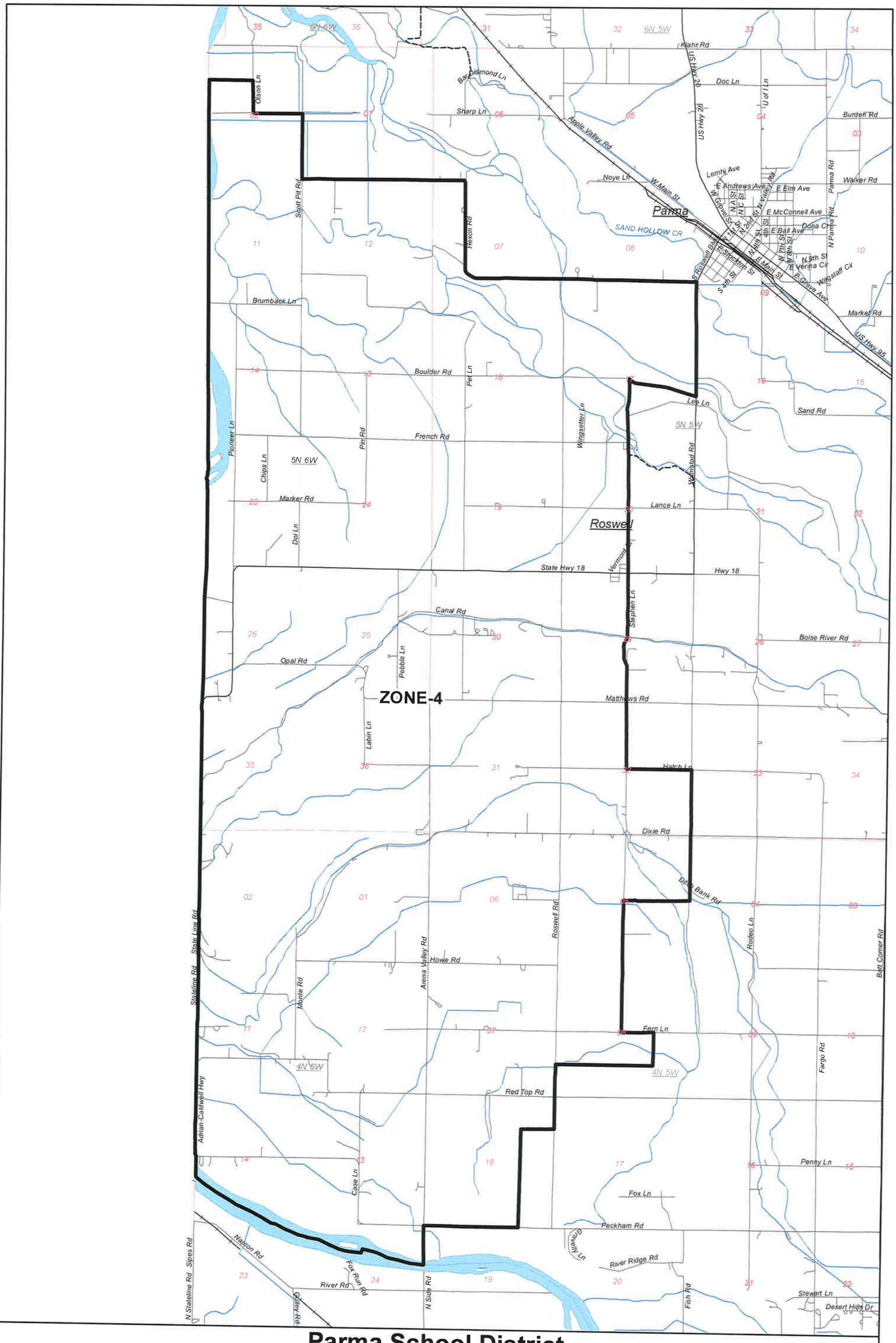
Parma School District

Trustee Zone 3

April 2022

0 0.275 0.55 1.1 1.65 Miles

N W E S


ZONE-4
Parma
Roswell
Parma School District
Trustee Zone 4
April 2022
0
0.5
1
2
3
Miles
N
W
E
S

ZONE-5

Parma School District

Trustee Zone 5

April 2022

0 0.05 0.1 0.2 0.3 Miles

N W E S

E Walker Ave
Walker Rd
E Andrews Ave
E Elm Ave
E Ross Ave
E Locust Ave
E Tucker Ave
E McConnell Ave
E Stewart Ave
E Curtis Ave
Donna Ct Dona Ct
E Ball Ave
E Lang Ave
E Bates Ave
E Fisk Ave
E King Ave
E Grove Ave
E Main St
E Stockton St
E Verina Cir
E Stockton Rd
Wagontail Cir
U of I Ln
N B St
N C St
N D St
N Valley Rd
N 1st St
N 2nd St
N 3rd St
4th St
N 4th St
N 5th St
N 6th St
N 7th St
N 8th St
N 9th St
N 10th St
S 3rd St
S 4th St
Sabin St
N Fourth St
Anthony Cir
US Hwy 26
US Hwy 20
US Hwy 95
N Parma Rd
Parma Rd
Sand Rd
5N 5W
04
03
09
10
16
15

Exhibit A4.6

City of Parma
Water Master Plan

10/16/2023

REVISION 0

PREPARED FOR:

City of Parma
305 N 3rd St
Parma, ID 83660

Prepared by:

T-O Engineers
an Ardurra Company
332 N. Broadmore Way
Nampa, ID 83687

Appendix A -
Parma Water Service Area

CITY OF PARMA

WATER MAP

N

350 0 350 700 Feet

SCALE: 1 INCH = 350 FEET

WELL #12
WELL #10
WELL #9
WELL #6
WELL #7
WELL #8
WELL #5
WELL #4
WELL #3
WELL #2
WELL #1

E WALKER AVE
E ANDREWS AVE
E ELM AVE
E LOCUST AVE
E TUCKER AVE
E MCCONNELL AVE
E CURTIS AVE
E DONNA CT
E BALL AVE
E LANG AVE
E FISK AVE
E KING AVE
E VIRINA CIR
E STOCKTON RD
E MAIN ST
E MAPLE AVE
E MATES AVE
E STARCHER AVE
E LARK AVE
E WENDELL RD
E ROSS AVE
E PIONEER WAY
E SAGE CT
E SAGE HORN LN
E FERN CT
E SPENCER AVE
E CHERRY AVE
E SUNSET AVE
E SUNSET ST
E LOTTEN
D LINE CANAL
N WALKER RD
N ROMEO ST
N BUR AVE
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Exhibit A4.7

1445 N. Orchard St.
Boise ID 83706 • (208) 373-0550

Brad Little, Governor
Jess Byrne, Director

August 18, 2025

The Honorable Angie Lee
Mayor, City of Parma
305 North 3rd Street
Parma, Idaho 83660
mayor@cityofparmaidaho.org

Subject: **Approval – City of Parma Wastewater Treatment Plant Facility Plan (*City of Parma, Canyon County*)**

Dear Mayor Lee:

The Idaho Department of Environmental Quality (DEQ) has completed its review of the City of Parma Wastewater Treatment Plant Facility Plan (Facility Plan), which was initially submitted on July 2, 2025, by your engineer, HECO Engineers. The final submittal of the Facility Plan was sealed and signed by John Blom, PE, on August 13, 2025. DEQ has reviewed the Facility Plan for general conformance with the "Wastewater Rules" (IDAPA 58.01.16) and determined it is approved.

This approval is for the Facility Plan only. When designing any facility upgrades associated with this Facility Plan, a Preliminary Engineering Report (PER) for the improvements must be reviewed and approved by DEQ prior to submitting Plans and Specifications. Plans and Specifications cannot be accepted for review until the corresponding PER is approved. Furthermore, no construction can begin until the Plans and Specifications have been reviewed and approved by DEQ.

If you have any questions, please contact me at (208) 373-0117, or via email at gary.carroll@deq.idaho.gov.

Sincerely,

C. Gary Carroll, PE
Senior Water Quality Engineer

Enclosure: Stamped as Approved Facility Plan Cover Page

c: Brett Laird, Jacob Qualls, City of Parma
John Blom, PE, Andy Gehrke, PE, HECO Engineers
Kevin Ryan, PE, USDA Rural Development
Valerie Greear, PE, Heidi Caye, Emily Montague, DEQ
2025AGD4301

WASTEWATER FACILITY PLAN

IPDES Permit No. ID0021776

Prepared for:

City of Parma, Idaho

May 2025

PROFESSIONAL ENGINEER
REGISTERED
3985
STATE OF IDAHO
JOHN D. BLOM

DRAFT

Prepared By:

HECO ENGINEERS

32 N Main Street • PO Box 235 • Payette, ID 83661
208 642 3304 • info@hecoengineers.com

HECO Project: PA 25-0312

WASTEWATER FACILITY PLAN

Prepared for:

City of Parma, Idaho

REVIEWS AND APPROVALS

Prepared by:

John Blom, PE, Principal, Project Engineer	Date

Acceptance:

Angie Lee, Mayor	Date
Brett Laird, Public Works Superintendent	Date

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LIST OF ACRONYMS AND ABBREVIATIONS

Avg	Average
BMPs	Best Management Practices
BOD_5	5-day Biochemical Oxygen Demand
Cfs	Cubic feet per second
CFR	Code of Federal Regulations
DEQ	Idaho Department of Environmental Quality
Dia	Diameter
DMR	Discharge Monitoring Report
E. coli	Escherichia Coliform
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
Ft	Feet
Gph	Gallons per hour
GPM	Gallons per minute
Gpcd	Gallons per capita per day
HP	Horsepower
Hr	Hour
I/I	Infiltration and Inflow
IDAPA	Idaho Administrative Procedures Act
IPDES	Idaho Pollutant Discharge Elimination System
ITD	Idaho Transportation Department
kW	Kilowatt
L	Liter
Lb	Pound
LS	Lump Sum
Mg	Milligram
Mgd	Million gallons per day
mg/L	Milligram per Liter
Mm	Millimeter
MSL	Mean sea level
NAAQS	National Ambient Air Quality Standard
NOI	Notice of Intent
NRCS	Natural Resources Conservation Service
IPDES	Idaho Pollutant Discharge Elimination System
O&M	Operations and Maintenance
P	Phosphorus
PLC	Programmable Logic Controller
PVC	Polyvinyl chloride
RD	US Department of Agriculture, Rural Development Agency

RI	Rapid Infiltration Beds or Basin
SCC	Idaho Soil Conservation Commission
SERP	State Environmental Review Process
SHPO	Idaho State Historic Preservation Office
sq ft	Square feet
SCADA	Supervisory Control and Data Acquisition System
SWPP	Storm Water Pollution Prevention
TKN	Total Kjeldahl Nitrogen
TMDL	Total maximum daily loading
TP	Total Phosphorus
TSS	Total suspended solids
USBR	U.S. Bureau of Reclamation
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WWTF	Wastewater Treatment Facility
Yr	Year
<	Less than
>	Greater than
=	Equivalent to
≈	Approximately equivalent to
%	Percent

1.0 EXECUTIVE SUMMARY

The City of Parma's wastewater treatment facility, built in 1989, is no longer compliant with its Idaho Pollutant Discharge Elimination System (IPDES) permit due to elevated phosphorus, TSS, and E. coli levels. Upgrades are required by 2027 to meet regulatory limits. This Facility Plan evaluates five alternatives to address compliance with the IPDES permit. While evaluating the alternatives, factors such as cost, feasibility, and environmental impact over a 20-year period are considered. With a growing population and aging infrastructure, these improvements are critical to ensure regulatory compliance and long-term system sustainability.

2.0 INTRODUCTION

The City of Parma is located in the western region of Canyon County of Idaho and is governed by a City Council and Mayor. The City owns and operates a public wastewater collection and treatment facility (IPDES Permit No. ID0021776) and a public water system (PWS ID3140089).

The City of Parma owns and maintains Parma Wastewater Treatment Plant (WWTP), designed in 1989 to serve a maximum population of 2,340. The system consists of approximately 52,000 linear ft of sewer collection piping, including clay and concrete pipes dating to 1915, 194 manholes, 1 lift station, and a 0.68 million-gallons-per day WWTP. The system includes an influent lift station, a bar screen, three lagoons, four rapid infiltration beds, a chlorination disinfection system, and a direct discharge into Sand Hollow Creek.

The principal document governing the operation and maintenance of the facility is the IPDES discharge permit No. ID0021776, issued by the Idaho Department of Environmental Quality (DEQ) (see Appendix A).

Facility upgrades at the existing wastewater treatment facility are recommended to meet the IPDES discharge permit, especially the phosphorus removal required for the plant. IPDES Permit Number ID0021776 sets multiple restrictions on the effluent from WWTP to the receiving water. Currently, the phosphorus levels in the effluent exceed the permitted discharge limits and need to be fully addressed by 2027.

To comply with the IPDES permit requirements, a total of five alternatives were considered. This report evaluates these alternatives at Parma WWTP, with a range of construction costs, associated benefits, and challenges, that can be used to address the reduction of phosphorus and other effluents to comply with permit levels. The alternatives are:

a) Alternative 1: Existing WWTP Improvements
b) Alternative 2: Full Reuse System
c) Alternative 3: Full Evaporative System
d) Alternative 4: Combined Discharge and Evaporative System
e) Alternative 5: Combined Reuse and Evaporative System

The proposed alternatives aim to either completely avoid or significantly reduce the discharge of treated wastewater into Sand Hollow Creek to comply with the IPDES Permit. This can be accomplished through land reuse, pond evaporation, or a combination of both. Additionally, limited effluent discharge into the creek through the existing outfall can be combined with pond evaporation. Moreover, chemical treatment to reduce phosphorus levels is considered to meet the IPDES permit requirements for the wastewater treatment plant. Each alternative is evaluated for a minimum operational life cycle of 20 years.

3.0 EXISTING CONDITIONS

3.1 Planning Area Boundaries

Parma is situated in the western part of Canyon County, Idaho, about 38 miles northwest of Boise. Grove Avenue, which is part of U.S. Highways 20, 26, and 95, serves as the city's main route. Commercial and business activities are primarily concentrated along and south of Grove Avenue, while residential areas and churches are mostly located to the north. The Union Pacific Railroad runs parallel to and south of Grove Avenue. The city covers approximately 704 acres. Within its 1.1-square-mile boundary, Parma provides and maintains water and sewer services for its residents and businesses. See Figure 3-1 for a map of the city limits.

Figure 3-1 City of Parma

3.2 Existing Environmental Conditions

This section describes the existing environmental conditions in the planning area.

3.2.1 Physiography, Topography, Geology, and Soils

Parma is in the western region of Canyon County, Idaho, approximately 38 miles northwest of Boise. Its geographical coordinates are 43°47′10″N, 116°56′34″W, and it sits at an elevation of approximately 2,231 feet (680 meters) above sea level. The city covers an area of 1.1 square miles (704 acres) and has a population of 2,096 per the 2020 US Census. Given a projected annual growth rate of about 1.00%, the anticipated population by 2046 is 2,704.

The current wastewater collection system relies mainly on gravity to transport wastewater from residences and businesses in Parma to an influent pumping station in the city's southwestern sector. This station then pumps the wastewater to biological treatment lagoons situated to its west.

According to the NRCS Soil Survey for Canyon County, the soils found in southern Parma and south of Grove Avenue mainly belong to the Moulton-Bram-Baldock Association, which is typically found in the bottomlands of the Boise River and Sand Hollow Creek. In contrast, northern Parma is predominantly characterized by the Greenleaf-Nyssaton-Garbutt Association, which occurs on high lake terraces and alluvial fans.

3.2.2 Surface and Ground Water Hydrology

Parma is in a desert area that relies on irrigation water from the Boise River watersheds. Meteorological data from the Parma Experiment Station, gathered by the University of Idaho Southwest Idaho Research & Extension Center between November 7, 1922, and December 31, 2005, shows an average annual precipitation of 10.2 inches. Nearly 70% of this precipitation occurs from November to April each year, while the annual evaporation is about 33.57 inches, with almost 85% happening from May to October. The average monthly maximum temperature is 92.1ºF in July, and the average monthly minimum temperature is 19.2ºF in January. Figure 3-1 is an aerial photo of the Parma area, and Figure 3-2 is a more detailed picture of the WWTP site.

Stormwater runoff from Parma moves south and west, flowing into various drainage systems that eventually empty into Sand Hollow Creek, which then drains into the Snake River near and just north of its confluence with the Boise River. In the area south of Grove Avenue, shallow groundwater is found between 5 and 10 feet below the surface at approximately 2,200 feet above sea level, while the land elevation rises to 2,350 feet above sea level north of Grove Avenue.

The groundwater system in the Boise River Valley is mainly found within loose deposits of silt, sand, clay, and fine gravel (Graham and Campbell, 1981). Water quality varies depending on the sedimentary layers through which the water flows. The aquifer's zones are interconnected, with clay layers providing partial separation between water-bearing areas (IDWR, 1995). Overall, groundwater generally moves westward toward the Boise River.

3.2.3 Cultural Resources

The State of Idaho Historic Preservation Office (SHPO) was not consulted for this current facility plan effort to determine if there are any properties (historical, architectural, archaeological) in the planning area that are listed, or eligible for listing, on the National Register of Historic Places.

Any proposed Facility Plan improvements will occur within City rights-of-way and easements or on City-owned properties, and construction activities will occur within previously disturbed areas. For these reasons, consultation with SHPO is not expected to be necessary for the proposed improvements unless necessary due to project funding agency requirements.

The Idaho State Historical Society does list three (3) sites in the National Register of Historic Places:

- Fort Boise (Hudson’s Bay Company) and Riverside Ferry.
- Sacred Hearts of Jesus and Mary Catholic Church.
- Stewart, A. H., House.

Any project noted in this facility plan document will not affect these sites.

3.2.4 Utility Use

Idaho Power Company provides electricity to Canyon County and the City of Parma, covering a service area of about 24,000 square miles across southern Idaho and eastern Oregon. This region includes 84 cities within both states. Residential customers of Idaho Power pay an average electricity rate of 11.90 cents per kilowatt-hour, which is 25.88% lower than the U.S. average of 16.06 cents.

The typical monthly residential electric bill in the U.S. is $139.28, whereas Idaho Power customers pay 28.24% less, averaging $99.95 per month. The company generates 6,314,019.4 megawatt hours annually from non-renewable energy sources and ranks 98th among 3,530 electricity providers in the nation in terms of production.

3.2.5 Floodplains and Wetlands

The Federal Emergency Management Agency (FEMA) has mapped the 100-year and 500-year floodplains, which are mainly located south of the Union Pacific Railroad. However, portions of the 500-year floodplain also extend to several areas north of the railroad and south of Grove Avenue. Additionally, wetlands are situated just north of the Wastewater Treatment Facility and within Parma's city limits.

3.2.6 Wild and Scenic Rivers

Congress passed the Wild and Scenic Rivers Act in October of 1968. It was described as "a policy that would preserve other selected rivers or sections thereof in their free-flowing condition to protect the water quality of such rivers and to fulfill other vital national conservation purposes." It was passed to protect certain rivers within the United States "which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values." The Wild and Scenic Rivers Act intends to protect the identified rivers "… for the benefit and enjoyment of present and future generations." There are no Wild and Scenic Rivers in the Parma planning area.

3.2.7 Public Health Considerations

The Parma planning area has no significant public health problems, and the wastewater system has not created any documented public health issues at present.

3.2.8 Proximity to Sole Source Aquifer

A sole-source aquifer is an aquifer that the EPA has designated as the sole or principal source of drinking water for an area. A sole-source aquifer receives special protection. Idaho has three sole source aquifers – the Eastern Snake River Plain Aquifer, the Spokane Valley-Rathdrum Prairie Aquifer, and the Lewiston Basin Aquifer. The nearest sole source aquifer to Parma is the Eastern Snake River Plain Aquifer, located approximately 130 miles to the east. A designated sole-source aquifer map is included in Appendix B.

3.2.9 Land Use and Development

The City of Parma has developed a Comprehensive Plan that serves as a 'living document' and represents a consensus on city planning issues and policies at a particular time. The comprehensive plan is intended to be Parma's public growth policy and must be responsive to change, forward-looking, and publicly supported. It should be regularly reviewed and revised, if necessary, to reflect the community's changing attitudes and desires.

The City Zone map is included in Appendix oC. The City code currently has three (3) zoning designations. These include:

- Zone R-1: Single-Family Residential Zone,
- Zone R-2: Combined Residential Zone,
- Zone R-3: Multiple-Family Residential Zone,
- Zone C-1: Neighborhood Commercial Zone,
- Zone C-2: Community Commercial Zone,
- Zone C-3: Service Commercial Zone,
- Zone M-1: Light Industrial Zone,
- Zone M-2: Heavy Industrial Zone.

The project site is located in Zone M-1-Light Industrial Zone. Parma is bordered by agricultural land on all sides that would not restrict residential growth. The City has prepared for potential community growth to the centralized area around the railroad corridor. Therefore, community growth is expected to move southwest, south, east, north and northwest of Parma. However, the timing and extent of community growth cannot be ascertained because of the dynamic nature of the national and state economies, as well as the multiple ways of developing residential properties. Growth and development within the City have been consistent over the past several years.

3.2.10 Precipitation & Evapotranspiration

USBR Pacific Northwest Region AgriMet Network keeps records from a weather station in Parma (Identifier: PMAI). The average precipitation and evapotranspiration data from the Parma weather station for the period of 1987 through December 2021 is presented in Table 3-1. Parma receives an average of 8.77 inches of total precipitation annually. Moreover, a total of 33.57 inches of evaporation also occurs annually here. The precipitation and evapotranspiration values are also verified from another source of recorded data from a weather station in Parma (Station Identifier: USC00106844) via National Weather Service Cooperative Observer Network. These data are reported via researchers from the University of Idaho Kimberly Research and Extension Center, under contract with the Idaho Department of Water Resources (IDWR) and published in the ET-IDWR website.

Table 3-1 Meteorological Data

Month	Average Total Precipitation (in.)	Average Total Evapotranspiration (in.)
January	0.65	0.48
February	0.79	0.99
March	0.86	2.37
April	1.15	3.40
May	0.73	4.49
June	0.24	4.89
July	0.22	5.47
August	0.39	4.78
September	0.67	3.35
October	0.82	2.00
November	1.16	0.86
December	1.09	0.49
Total (Annually)	**8.77**	**33.57**

3.2.11 Air Quality and Noise

The U.S. Environmental Protection Agency (EPA) developed primary and secondary federal air quality standards known as National Ambient Air Quality Standards (NAAQS) for six criteria pollutants that include particulate matter, carbon monoxide, sulfur dioxide, ozone, nitrogen dioxide, and lead. Primary standards set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards set limits to protect public welfare, including protection against decreased visibility, and damage to animals, vegetation, and buildings.

The State of Idaho has adopted these federal air quality standards in IDAPA 58.01.017, "Rules for the Control of Air Pollution in Idaho." Canyon County and the Parma planning area do not exceed the NAAQS; therefore, the planning area is classified as "an attainment area that meets federal air quality standards." The proposed wastewater collection system and treatment facility improvements are not expected to affect this attainment area classification.

The Noise Control Act of 1972 directed the EPA to publish scientific information describing the effects of different qualities and quantities of noise and to define acceptable levels under various conditions that would protect public health and welfare with an adequate margin of safety. The EPA collaborated with other Federal agencies and the scientific community to publish a guidance document known as the "Levels Document", titled Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, EPA/ONAC 550/9-74-004, March 1974. The Levels Document serves as regulatory guidance and is not an enforceable regulatory standard. Therefore, DEQ encourages local communities to develop and implement local guidelines or standards for managing noise levels that follow EPA guidelines.

3.2.12 Energy Production and Consumption

Idaho Power Company supplies electrical power to the City of Parma. Its service area encompasses approximately 24,000 square miles in southern Idaho, eastern Oregon, and northern Nevada. The existing system resources of Idaho Power include 17 hydroelectric plants, located on the Snake River and its tributaries. Its plants have a combined capacity of 1,588 megawatts. The three-dam T.E. Roach complex in the Hells Canyon region of the Snake River provides the backbone of Idaho Power's hydroelectric generating system. Natural gas services are available in Parma.

3.2.13 Socioeconomic Profile

According to the US Census, in 2020, the population of Parma, Idaho, was approximately 2096. The median age of the population is approximately 39 years whereas the state's median age is approximately 37 years. The male population is approximately 51%, and females are approximately 49%. Data regarding education amongst the City's population showed approximately 68% graduated high school and 12% obtained a bachelor's degree or higher.

3.2.14 Economic Conditions and Trends

A socioeconomic profile measures the person's work experience and an individual or family's economic profile relative to others. According to the Census Reporter using ACS 2023 5-year census data, the estimated median household income in Parma, Idaho in 2023 was approximately $47,798 compared to the state median annual income of approximately $74,942 across the State of Idaho. In 2023, the estimated median house is valued at approximately $232,400 compared to the Idaho median value of approximately $428,600.

3.2.15 Population Trends

According to the 2020 U.S. Decennial Census, the population of Parma was 2,096 people. Based on historical U.S. Census Bureau data, the annual population growth rate for the City of Parma is projected to be approximately 1.0 percent or less during the next 20 years, with a projected 2046 population of approximately 2,704 residents.

3.2.16 System EDU's

Parma charges a fixed fee for sewer services, applying the same rate to both residential and commercial users. The monthly fee is ---. The City does not monitor commercial sewer usage and treats all users as equal. City officials report that there are --- sewer connections. The 2020 census recorded a population of 2,096 in Parma. In 2027, the estimated population will be 2,227 with a 1.00% annual growth rate. In 2020, there were 2.77 individuals per household in Parma.

Table 3-2 City of Parma's EDU Estimate

	City Estimate	2020 Estimate	2023 Estimate*
EDU's			
*using average household size of 2.77 persons/home			

***Need information from City

Since the City does not distinguish between residential and commercial users, an accurate EDU calculation cannot be made.

3.3 Description of Existing Wastewater Treatment Facilities

This section describes the existing wastewater treatment facilities.

3.3.1 Existing Wastewater Treatment Facility

The Parma Wastewater Treatment Plant (WWTP), constructed in 1989, was designed to serve a maximum population of 2,340. The original system included an influent lift station, a bar screen, three lagoons, four rapid infiltration beds, a chlorination disinfection system, and a direct discharge into Sand Hollow Creek.

In the current configuration, wastewater from the city is collected at the Influent Lift Station, which is pumped to a Separator with a Fine Screen to filter out fine solids from wastewater. The water then moves to the Bar Screen and subsequently flows through Lagoons 1, 2, and 3 for biological treatment. Afterward, the treated water is intended to pass through the Sand Filters as a polishing step for solids and phosphorus removal.

After the sand filters, the water is directed to the Splash Pad for chlorination and mixing before entering the Chlorine Contact Chamber near the Chemical Building, where disinfection occurs. Dechlorination is achieved by adding chemicals to reduce chlorine residual following disinfection before the treated water can be discharged into Sand Hollow Creek. A more detailed picture of the WWTP site is shown in Figure 3-2.

Figure 3-2 Parma Wastewater Treatment Plant

3.3.2 Influent Characteristics

A new flow meter was installed on the influent line to the wastewater treatment plant during the most recent construction project. Additionally, a flow meter is in place at the discharge point into Sand Hollow Creek. Since the influent meter is newly installed and the previous system lacked flow measurement capabilities, available data for full years is limited to the 2023–2024 period.

The influent flow data are tabulated from the City of Parma WWTP Influent Flow Meter for the year 2023, as shown in Table 3-3. The detailed influent data are shown also in Appendix D.

Table 3-3 Influent Flow Data at Parma WWTP for 2023

Month	Average Influent Flow, gallons	Per Capita Flow, gallons
January	301,791	128.98
February	236,656	127.45
March	252,595	116.06
April	236,356	114.12
May	262,795	125.38
June	240,479	114.73
July	204,021	100.69
August	215,440	102.79
September	215,456	102.79
October	203,830	97.25
November	207,009	98.76
December	241,900	115.41
Total (Annually)	2,818,327	1344.62

3.3.3 Flow-Reduction Programs In-Effect

The City of Parma strives to identify and implement ways to reduce excessive infiltration and inflow into the sewer collection system.

3.3.4 IPDES Permit Limits

The Idaho Pollution Discharge Elimination System (IPDES) Permit Number ID0021776 imposes specific effluent limits for the Parma WWTP, as outlined in Table 3-4.

Table 3-4 Parma IPDES Wastewater Permit on Effluent Limits

Parameter	Units	Effluent Limits		
		Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Five-Day Biochemical Oxygen Demand (BOD_5)	mg/L	30	45	—
	lb/day	170	255	
	% removal	85% (min)	—	—
Total Suspended Solids (TSS)	mg/L	30	45	—
	mg/L	17.5 4-month rolling average		
	lb/day	170	255	—
	lb/day	99.2 4-month rolling average		
	% removal	85% (min)	—	—
E. coli Bacteria[1]	#/100 ml	126	—	576 instantaneous max limit
pH[2]	s.u.	6.5-9.0		
Total Residual Chlorine (TRC) – Interim[3]	mg/L	0.5	0.75	—
	lb/day	2.84	4.25	—
Total Residual Chlorine (TRC) – Final[3]	mg/L	0.074	—	0.186
	lb/day	0.42	—	1.05
Total Phosphorus, as P – Interim[4]	lb/day	6.46	—	—
Total Phosphorus, as P – Final (May – September)[4]	mg/L	0.070	0.141	—
	lb/day	0.40	0.80	—
Parameter	Units	Effluent Limits		
		Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit

1. The average monthly E. coli count must not exceed a geometric mean of 126/100 mL based a minimum of five samples taken every three to seven days within a calendar month. See Part VI of the draft permit for definition of geometric mean.
2. The pH range must be maintained at all times
3. TRC are subject to a compliance schedule. TRC final limits apply beginning three years from the effective date of the permit. See Part II.C of the permit for additional details
4. Total Phosphorus limits are subject to a compliance schedule. Final limits apply beginning 9 years and 11 months after the effective date of the permit. See Part II.C of the permit for additional details.

3.3.5 Effluent Quality

This section presents the effluent water quality data from the Parma WWTP for the years 2022-2024, as detailed in Table 3-5. The reported values indicate several violations of BOD, TSS, and E. coli limits specified in the IPDES permit.

Table 3-5 Effluent Data from Parma WWTP

	2022			2023			2024		
Month	BOD (mg/L)	TSS (mg/L)	E. coli (MPN/ 100mL)	BOD (mg/L)	TSS (mg/L)	E. coli (MPN/ 100mL)	BOD (mg/L)	TSS (mg/L)	E. coli (MPN/ 100mL)
January	79	17	290	38	29	84	14	17	< 1
February	78	28	< 1	47	48	< 1	-	-	-
March	74	21	110	47	58	7	-	-	-
April	12	14	< 1	30	48	2	26	29	< 1
May	20	17	< 1	46	90	4	28	62	4
June	28	43	< 1	35	30	17	26	42	1
July	24	37	15	26	52	< 1	33	40	< 1
August	26	64	99	23	29	< 1	52	23	< 1
September	25	32	< 1	24	26	820	39	21	< 1
October	21	25	< 1	10	23	< 1	36	14	< 1
November	10	16	< 1	18	11	< 1	30	6	< 1
December	26	31	1	15	23	< 1	14	ND	< 1

3.3.6 Wastewater Facility Violations

Multiple violations have been reported to the Department of Environmental Quality (DEQ) regarding exceedances of E. coli and Total Suspended Solids (TSS) over the past few years. On May 17, 2023, DEQ issued a Notice of Noncompliance to the City of Parma Wastewater Treatment Plant under the IPDES Permit ID0021776. The noncompliance was attributed to a sanitary sewer overflow (SSO) into the Parma Drain, which flows into Sand Hollow Creek. In response, the City took corrective actions, including providing a 24-hour telephone notification on Sunday, April 30, 2023, and submitting a 5-day written report on May 1, 2023. Examples of violations include multiple reports in 2023 from the City to DEQ regarding exceedances of TSS, the 4-month rolling average of TSS, and the percentage of removal on Biochemical Oxygen Demand (BOD). On December 20, 2024, the City notified DEQ of exceedances of the 4-month TSS rolling average at the Wastewater Treatment Plant (WWTP). Additionally, on January 3, 2025, the City of Parma submitted a letter to DEQ reporting the detection of a high E. coli level at the Parma WWTP.

3.3.7 User Charges and Operation and Maintenance Budget

***Need information from City

3.3.8 Defects or Deficiencies

The existing WWTP does not meet IPDES permit requirements due to several deficiencies: the sand filter influent from Lagoon No. 3 exceeds the TSS design criterion of less than 20 mg/L, ranging from 30 to 200 mg/L seasonally; the sand filter influent also exceeds the TP design criterion of less than 0.8 mg/L, with current levels around 3.2 mg/L, and the existing coagulant dosing strategy is ineffective due to algae growth; additionally, the non-reactive phosphorus content in the wastewater exceeds the IPDES Total Phosphorus average monthly limit of 0.07 mg/L and cannot be adequately removed by the existing sand filters.

4.0 FUTURE CONDITIONS

4.1 Future Growth

According to the 2020 U.S. Decennial Census, the population of Parma was 2,096 people. Based on historical U.S. Census Bureau data, the annual population growth rate for the City of Parma is projected to be approximately 1.0 percent or less during the next 20 years, with a projected 2046 population of approximately 2,704 residents. The growth in population will intensify the pressure on the limited capacity of the collection system and treatment facility.

4.2 Future Operation and Maintenance Costs

***Need information from City

5.0 DEVELOPMENT AND INITIAL SCREENING OF ALTERNATIVES

5.1 Description of Problems/Deficiencies to be Corrected by the Project

The existing WWTP does not meet the IPDES permit requirements. The specific deficiencies are:

a) The sand filter influent from Lagoon No. 3 exceeds the filter influent total suspended solids (TSS) design criteria of less than 20 mg/L. The effluent from Lagoon No. 3 ranges between 30 and 200 mg/L, depending upon the time of year.

b) The influent to the sand filter from Lagoon No. 3 exceeds the filter influent total phosphorus (TP) design criteria of less than 0.8 mg/L. The lagoons need to reduce the TP levels from approximately 3.2 mg/L to 0.8 mg/L. The current WWTP plant design is to add coagulant to the raw wastewater prior to Lagoon No. 1 and precipitate the phosphorus out into Lagoon No. 1. However, it is unrealistic that dosing the raw influent will achieve the desired TP reduction since the plant does not account for the increase in solids that will naturally occur due to the growth of algae in all three ponds. The high phosphorus level in the discharged water into Sand Hollow Creek following final treatment, especially from May to September each year, is of particular concern due to the total phosphorus limits.

c) The phosphorus content in wastewater is non-reactive and greater than the IPDES permit limitation of 0.07 mg/L. Non-reactive phosphorus cannot be coagulated and filtered using the existing sand filters.

Therefore, this facility plan evaluates alternatives to solve these problems/deficiencies at Parma WWTP to comply with the IPDES permit.

5.2 Development of Alternatives

5.2.1 Alternative No. 1 – Existing WWTP Improvements

This alternative includes improvements for phosphorus and TSS reductions to levels within the design criteria of the sand filters. This option will involve upgrading the existing Parma WWTP to efficiently treat wastewater in compliance with the IPDES permit limits while discharging directly into Sand Hollow Creek. The flow diagram of the existing WWTP is shown in Figure 5-1.

The existing Sand Filters were intended to replace the previous rapid-infiltration (RI) beds for TSS and phosphorus reduction. The installed Sand Filter System was designed to remove soluble and reactive phosphorus forms. Phosphorus can be divided into two main types: reactive and non-reactive, as illustrated in Figure 5-2. These forms of phosphorus are typically present in water as soluble or particulate matter. Reactive phosphorus, also called inorganic phosphorus, is readily available for chemical reactions and can

be effectively removed and recovered using conventional methods. The sand filters in the existing WWTP were designed for reactive phosphorus removal. For effective phosphorus removal, the sand filters are designed to receive wastewater with an average total phosphorus concentration below 0.8 mg/L, a maximum total phosphorus concentration under 1.5 mg/L, and non-reactive phosphorus levels below 0.015 mg/L, ensuring compliance with the IPDES permit limit of 0.07 mg/L for total phosphorus. However, according to the Analytical Laboratories Inc. measurements, the wastewater entering the sand filters contains total phosphorus ranging from 2.53 mg/L to 4.7 mg/L and non-reactive phosphorus ranging from 0.17 mg/L to 0.75 mg/L. As a result, the existing sand filters are insufficient to reduce phosphorus levels to within permit requirements and may prevent the system from achieving compliance.

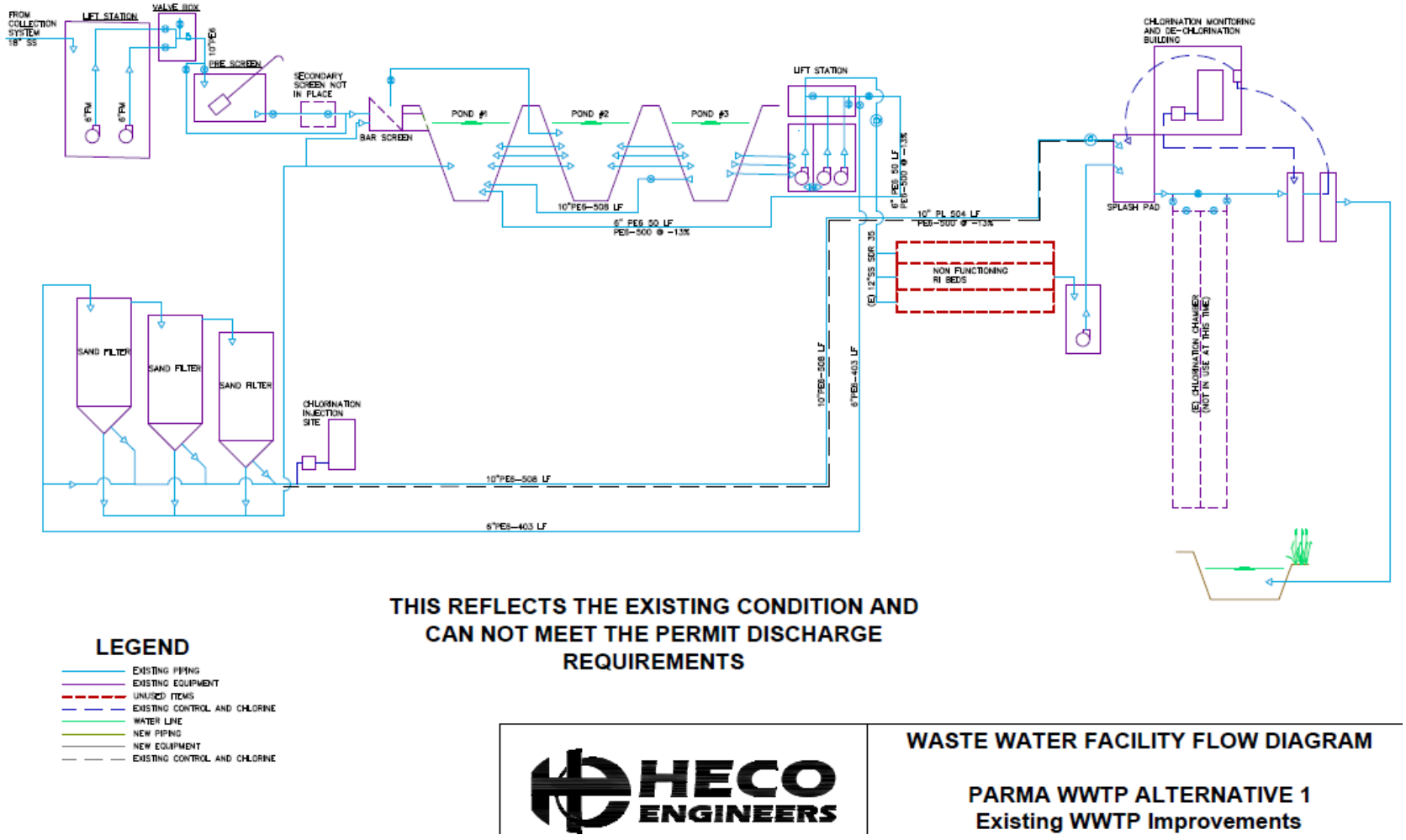


Figure 5-1 Flow Diagram for Alternative 1: Existing WWTP System

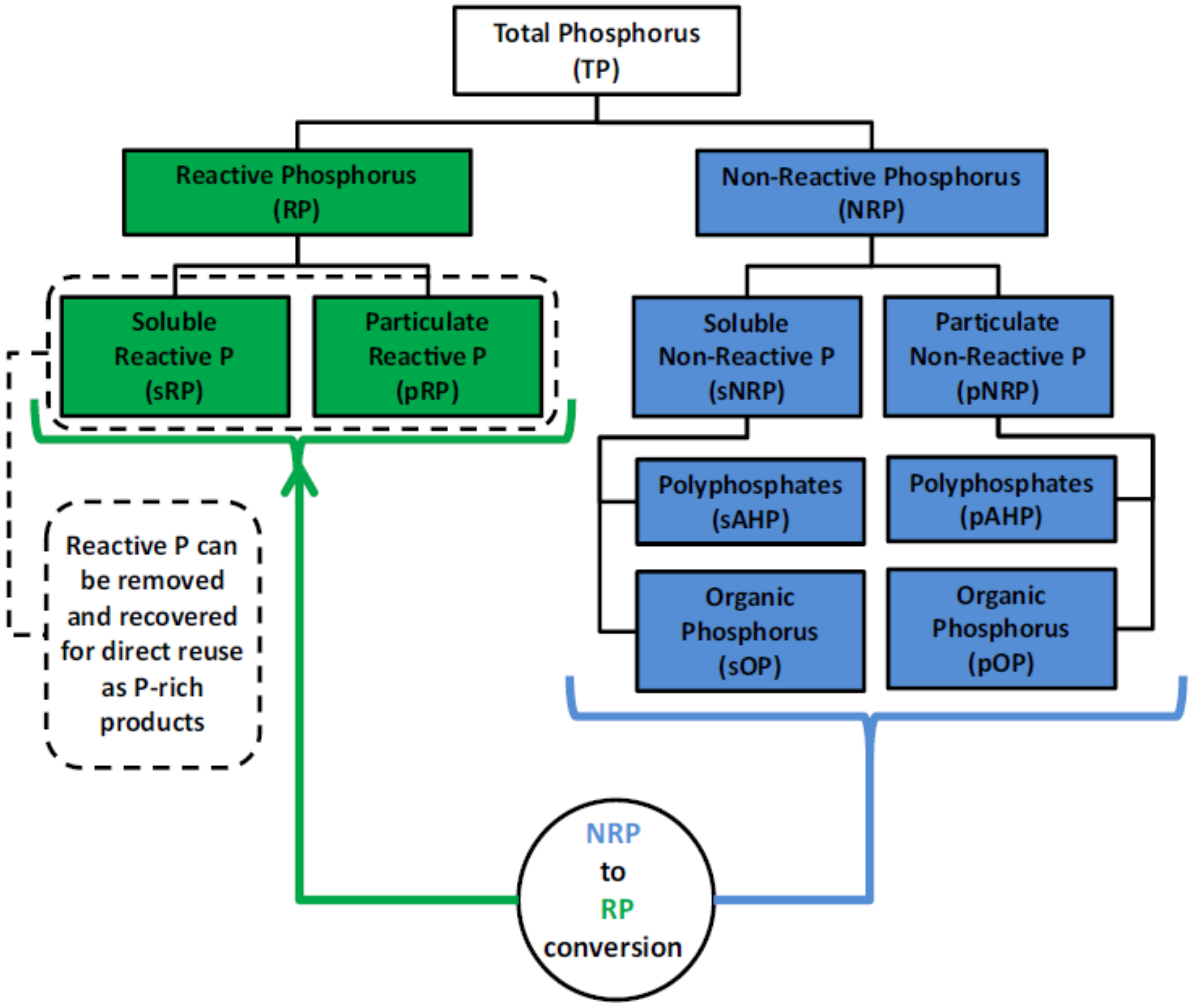
Test results for non-reactive phosphorus and total phosphorus in the lagoon-treated effluent are presented in Table 5-1. Non-reactive phosphorus (NRP), or organic phosphorus, is the difference between total dissolved phosphorus and total reactive phosphorus. The city is continuing to test for total phosphorus, reactive phosphorus and total dissolved phosphorus monthly.

Table 5-1 Non-Reactive Phosphorus Data from Laboratory Test

Date	Non-Reactive Phosphorus (mg/L) at Effluent	Total Phosphorus (mg/L) at Effluent
06/17/2024	0.17	2.23
07/15/2024	0.47	5.4
08/26/2024	0.18	4.57
09/17/2024	0.22	4.7
10/01/2024	0.15	4.31
11/04/2024	0.75	2.53
12/9/2024	0.41	3.5
2/3/2025	0.04	4.29

Non-Reactive Phosphorus Removal:

For non-reactive phosphorus removal to the low levels required by the permit during May-September, a mechanical treatment plant will be needed. The chemical species comprising the non-reactive phosphorus is unknown but could include polyphosphates, condensed phosphates, soluble organic phosphorus species, and other phosphorus-containing species. NRP is not readily available for chemical reactions and cannot be easily removed and recovered. The removal mechanics are complex and need to be better understood. The chemical structure of the NRP determines whether it can be removed. These removal technologies can include adsorption, filtration, and coagulation. However, other chemical structures that include some portion of the soluble acid-hydrolyzable and/or soluble organic phosphorus fractions cannot be removed by the tertiary (final stage) of a multi-stage wastewater treatment process and are considered recalcitrant or non-reactive. Recalcitrant phosphorus is suspected to be mostly if not entirely, comprised of soluble organic phosphorus.



NOTE: Reactive phosphorus can be removed and recovered for direct use, whereas non-reactive phosphorus must be converted to reactive phosphorus before removal and recovery.

Figure 5-2 Various Forms of Phosphorus (P) in Water, Collected from Literature [1, 2]

Non-reactive phosphorus must be converted into reactive phosphorus form in the treatment process for it to be treatable. The effectiveness of this conversion is also dependent upon the chemical structure of the non-reactive phosphorus. In general, the non-reactive phosphorus must be converted, to the extent possible, to orthophosphate (reactive phosphorus).

Below are several methods used to remove non-reactive phosphorus:

1. Chemical Hydrolysis and Precipitation

- **How It Works:** NRP, especially condensed phosphates, can be hydrolyzed (broken down) into orthophosphate using heat, acid, or enzymes. Once converted, it's treated with coagulants like alum (aluminum sulfate), ferric chloride, or lime to form insoluble phosphate precipitates, which are then removed via sedimentation or filtration.

- **Process:**

    1. Acidify the water (e.g., pH < 6) or heat it (e.g., 50-70°C) to hydrolyze polyphosphates.
    2. Add a coagulant to bind the resulting orthophosphate.
    3. Settle or filter out the solids.

- **Effectiveness:** Can achieve 80-95% total phosphorus removal depending on dosing and conditions.

- **Use Case:** Common in municipal wastewater treatment plants (WWTPs) with high polyphosphate loads from detergents.

- **Pros:** Integrates with existing chemical phosphorus removal systems.

- **Cons:** Energy-intensive (for heating) and less effective for organic NRP without additional steps.

2. Biological Phosphorus Removal (BPR)

- **How It Works:** Enhanced Biological Phosphorus Removal (EBPR) uses phosphorus-accumulating organisms (PAOs) in an anaerobic-aerobic process. PAOs uptake both orthophosphate and some organic phosphorus, storing it as polyphosphate in their cells, which is then removed with waste sludge.

- **Process:**

    1. Anaerobic phase: PAOs release stored phosphorus and take up organic matter.
    2. Aerobic phase: PAOs uptake excess phosphorus (including hydrolyzed NRP) and store it.
    3. Sludge wasting removes the phosphorus-laden biomass.

- **Effectiveness:** Can achieve 70-90% total phosphorus removal, including some NRP, if organic forms are bioavailable.

- **Use Case:** Ideal for WWTPs like lagoons (e.g., Parma's system) with algae-derived organic phosphorus.

- **Pros:** Sustainable, leverages existing microbial activity.

- **Cons:** Less effective for non-bioavailable NRP (e.g., complex organic compounds); requires careful process control.

3. Advanced Oxidation Processes (AOPs)

- **How It Works:** AOPs (e.g., ozone, UV/hydrogen peroxide, or Fenton's reagent) oxidize organic phosphorus into simpler, reactive forms like orthophosphate. This oxidation process converts complex organic molecules containing phosphorus into orthophosphate, which can then be more easily removed from water through techniques like precipitation or biological treatment.

- **Process:**

    1. Apply an oxidant (e.g., ozone gas or UV light with H_2O_2).
    2. Break down organic NRP into orthophosphate.
    3. Follow with coagulation or filtration.

- **Effectiveness:** Can achieve 60-90% organic phosphorus removal, depending on oxidant strength and contact time.

- **Use Case:** Useful for industrial effluents or WWTPs with recalcitrant organic phosphorus.

- **Pros:** Targets hard-to-treat NRP directly.

- **Cons:** High operational costs and energy use; not widely implemented at scale.

4. Adsorption

- **How It Works:** Adsorbents like activated carbon, iron oxide, or biochar capture NRP (especially organic forms) through surface binding, removing it from the water column without needing conversion to orthophosphate.

- **Process:**

    1. Pass water through an adsorbent media bed (e.g., granular activated carbon).
    2. NRP binds to the media via physical or chemical interactions.
    3. Regenerate or dispose of the saturated media.

- **Effectiveness:** Can achieve 50-80% total phosphorus removal, depending on media type and NRP composition.

- **Use Case:** Polishing step in WWTPs or treatment of lagoon effluent with algae-related NRP.

- **Pros:** Simple, no chemical additives needed.

- **Cons:** Media replacement costs; less effective for high NRP loads.

5. Membrane Filtration

- **How It Works:** Technologies like ultrafiltration (UF), nanofiltration (NF), or reverse osmosis (RO) physically separate NRP (especially particulate organic phosphorus) from water based on size or molecular weight.

- **Process:**

    1. Filter water through a membrane with small pore sizes (e.g., <0.01 µm for NF).

2. Retain NRP in the concentrate while passing clean water.
3. Treat or dispose of the concentrate.

- **Effectiveness:** Can achieve 90-99% total phosphorus removal, including NRP, depending on membrane type.
- **Use Case:** Advanced treatment for strict discharge limits (e.g., Parma's IPDES permit of 0.070 mg/L TP).
- **Pros:** High removal efficiency, versatile.
- **Cons:** Expensive, prone to fouling (e.g., by algae), and generates concentrated waste.

6. Coagulation-Flocculation with Enhanced Sorbents

- **How It Works:** Specialized coagulants or sorbents (e.g., lanthanum-modified bentonite or iron-enhanced polymers) target both reactive and non-reactive phosphorus, binding organic forms directly or aiding their flocculation for removal.
- **Process:**

1. Dose water with the enhanced coagulant.
2. Form flocs that trap NRP.
3. Remove via sedimentation or filtration.

- **Effectiveness:** Up to 90% removal of total phosphorus, including NRP.
- **Use Case:** Lakes, lagoons, or WWTPs with algae-driven NRP (like Parma's TSS issue).
- **Pros:** Targets NRP without full conversion; scalable.
- **Cons:** Cost of specialized materials; sludge disposal needed.

Converting non-reactive phosphorus to reactive phosphorus is still under research and has yet to be proven commercially viable for lagoon-treated WWTP. Therefore, the advanced treatment capabilities of a mechanical wastewater treatment plant are required to convert soluble acid-hydrolyzable phosphorus to orthophosphate to the extent possible. The primary treatment process for the Parma WWTP is an aerobic/facultative lagoon. Therefore, a new wastewater treatment plant will be required to treat the non-reactive phosphorus in the Parma wastewater effectively. Therefore, enhancements to the existing treatment process for phosphorus removal are currently deemed infeasible.

5.2.2 Alternative No. 2 – Full Reuse System (Land Application)

This alternative will eliminate discharging treated wastewater effluent directly into Sand Hollow Creek. Wastewater will be treated in the existing lagoon system and stored in a new winter storage pond. During the summer months, the treated water from the winter storage pond and the existing WWTP will be applied as irrigation to agricultural crops. This effluent will be applied at agronomic rates to crops like alfalfa, which can be grown on property in proximity to the WWTP.

An evaluation was conducted to determine the proposed dimensions of the required winter storage pond and the requisite area for land application of the treated effluent. Evaporation and precipitation data from 1990 to 2011 was collected from the Idaho Department of Water Resources (ET-IDWR) Evapotranspiration website[1]. Specifically focusing on City of Parma in Canyon County, Idaho, with station type “PN-AM” and station identifier “PMAI,” data were selected to emphasize "Open Water – shallow systems (ponds/streams)" as the pertinent land cover category. The highest recorded precipitation year was used for potential future worst-case scenarios for the treatment facility sizing.

No seepage from the ponds throughout the water year (October-September) was assumed due to the lagoon liners having been recently replaced. Additionally, evapotranspiration data for alfalfa was sourced from the same reference, with a usage factor of 0.61 integrated into the analysis to account for the estimated amount of time irrigation could not occur due to cutting, drying, and baling of the crop. The data gathered from the influent pump station readings at the Parma WWTP for year 2023 was utilized, followed by adjustments based on projected population growth through 2046. The source data for the influent and effluent pump station readings are displayed in Appendix D.

This alternative is designed for the population capacity in 2027 for an estimated 2,227 people. Assuming a steady annual population growth rate of 1.00% since the 2020 census count of 2,096, the projected population for December 2046 is approximately 2,704. The increased influent due to population growth of the City of Parma will be accommodated by the decrease in I&I flow entering into the Parma WWTP. Any new population growth needs to be addressed by the developers to offset any subsequent increase in the influent flow entering into the WWTP. Moreover, additional storage pond and mechanical evaporators can facilitate this increased flow via population growth or commercial volume.

Table 5-2 includes the estimated requirements for a full reuse system for average and maximum precipitation years.

[1] https://et-idwr.idaho.gov/

Table 5-2 Winter Storage Pond Requirements for Alternative 2 – Full Reuse System		
	Avg Precipitation Year	Max Precipitation Year
Winter Storage Pond (7.5 ft depth)	6 acres	6.5 acres
Land Application	65 acres	70 acres

Figure 5-3 shows lands near the WWTP that are either City-owned or that would need to be leased to account for the required land area for the reuse option. No property owners have been approached regarding the potential of leasing property for the land application of city-treated effluent. The flow diagram of Alternative 2 is shown in Figure 5-4.

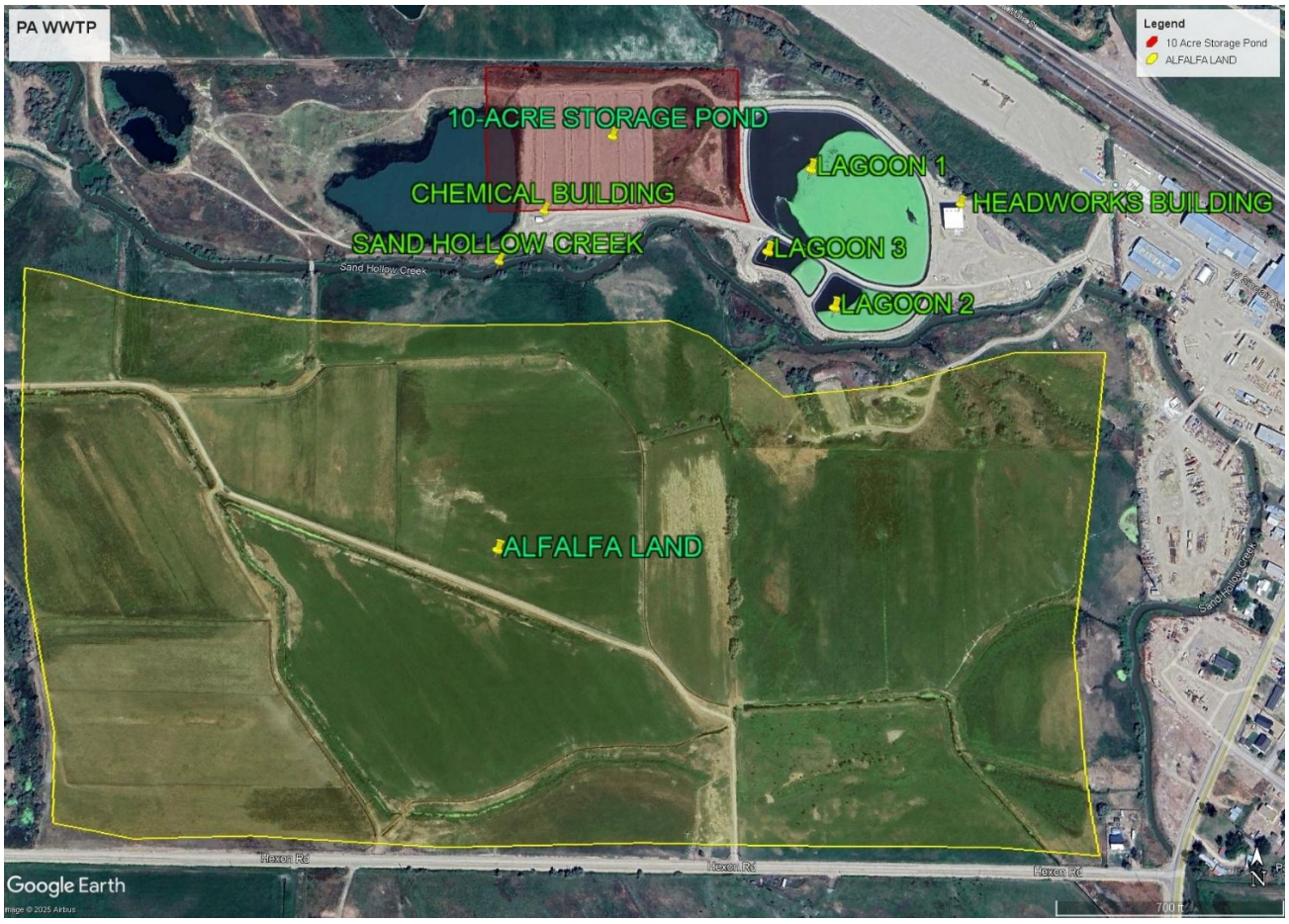


Figure 5-3 Land for Reuse System of the Wastewater Treatment Plant

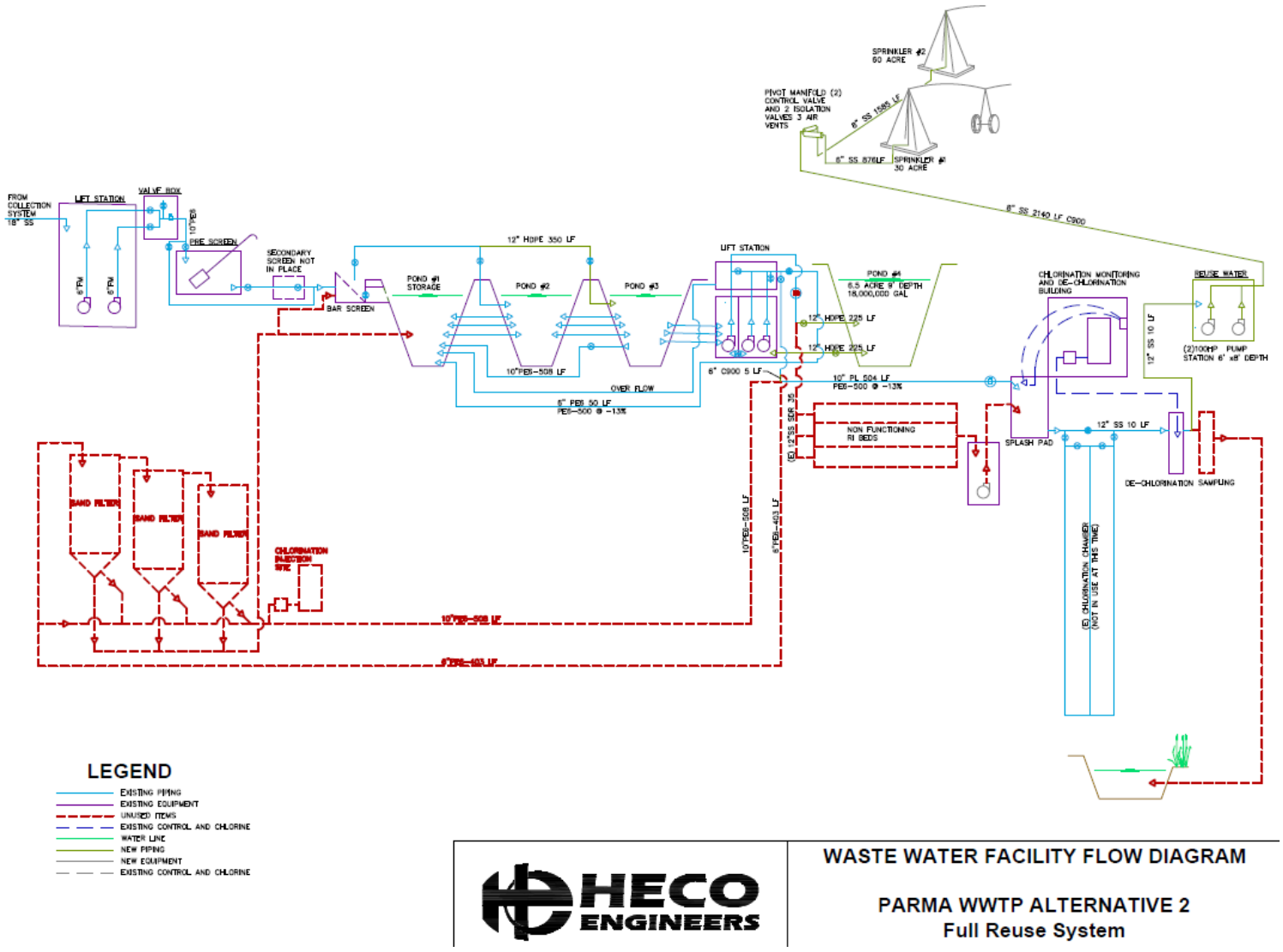


Figure 5-4 Flow Diagram for Alternative 2 – Full Reuse System

5.2.2.1 Irrigation System

For the reuse alternative, an effective sprinkler system must be used to distribute water from the storage pond. The adjoining land parcels shown in Figure 5-3 are irrigated via a ditch, but the Idaho Reuse regulations do not currently allow this methodology.

There are several advanced sprinkler systems available for efficient irrigation, including options like Center Pivot Irrigation (e.g., Zimmatic's 9500P center pivot), Lateral Move Irrigation (e.g., Zimmatic's 9500L standard lateral), Wheel Line Irrigation (e.g., Nelson's R2000WF & R33 Rotator Sprinklers), Traveler Crop Irrigation (e.g., Gezgin), and Solid Set Irrigation (e.g. Rain Bird Agricultural Impact Sprinklers). The choice of a specific sprinkler system will depend on the shape of the leased land and other design and operational factors.

Center Pivot Irrigation:

Center Pivot Irrigation such as the 9500P center pivot, shown in Figure 5-5, embodies versatility and robustness, perfectly suited for diverse terrains. Engineered with reinforced pipe strength and a full-flow collector ring, it ensures seamless power transmission and optimal water distribution across the field. Equipped with advanced controls, it facilitates precise management from any location. Its sturdy pivot point, featuring adjustable clearances, is bolstered by hot-dipped galvanized steel legs, guaranteeing longevity and resilience. Exclusive preformed sprinkler outlets ensure a secure seal, minimizing water wastage and prolonging the pivot's lifespan.

(c)

Figure 5-5 Center Pivot Irrigation System: 9500P Center Pivot

In this alternative, the center pivots are planned so that they can cover the maximum available land for alfalfa irrigation. Moreover, these center pivots' layout and distribution system are based on the landowner's preliminary design documents. The layout of the irrigation system is shown in Figures 5-6. Here, two center pivots, Sprinkler 1 (gold color) and Sprinkler 2 (green color), will be utilized to cover the required areas for alfalfa irrigation, as shown in Figures 5-6.

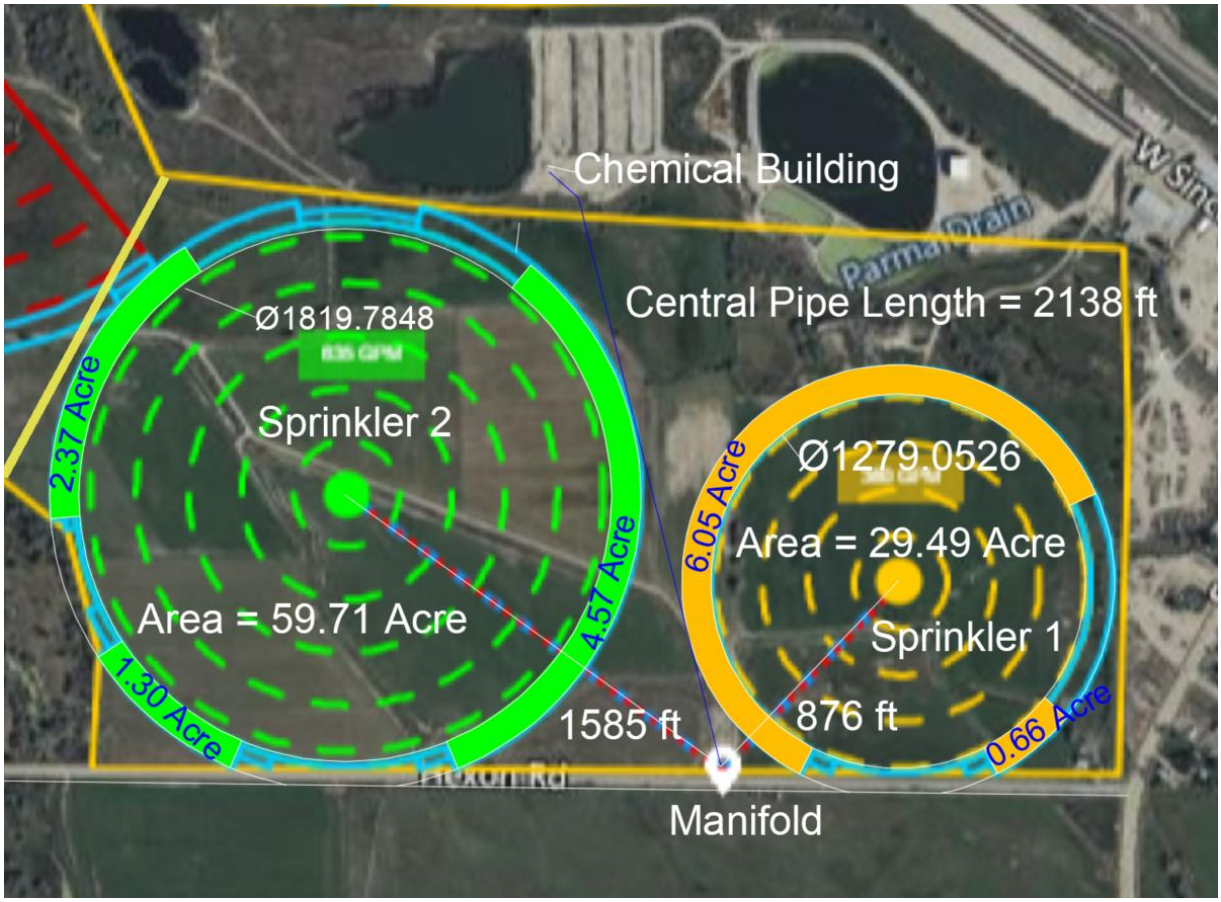


Figure 5-6 Center Pivot Irrigation System Layout for Alternative 2: Full Reuse System

The characteristics of each center pivot, such as radius, rotation angle, covered area, and fluid flow, are provided in Table 5-3. Moreover, the associated piping sizes and lengths of the pipes are also demonstrated in the table.

Table 5-3 Summary of the Center Pivot Systems for the Alternative 2 – Full Reuse System

Center Pivot Systems	Radius (ft)	Rotation Angle (degree)	Alfalfa Irrigation Area (Acres)	Fluid Flow (GPM)	Pipe Size (in)	Length of Piping (ft)
Sprinkler 1 (Gold)	640	360	30	132	6	876
Sprinkler 2 (Green)	910	360	60	247	8	1585
Additional Central Piping	-	-	-	378	10	2138
Valve and Bypass	-	-	-	-	12	880

5.2.2.2 Alternative 2 Construction Costs

This alternative system requires land for alfalfa irrigation, a storage pond, and an irrigation system with various-sized pipes. This system will be assumed to access land near the WWTP site for land requirements, as identified in Figure 5-3. The proposed pond location is also shown in Figure 5-3. The storage pond needs to be lined to avoid seepage. The pond will be 6.5 acres with a depth of 9 ft and a 3 ft freeboard with a volume capacity of 18 million gallons. The existing bank materials from Rapid Infiltration (RI) beds and adjacent areas are estimated to have 75,000 loose cubic yards (lcy) available for constructing the new pond. Developing perimeter embankments for the 6.5-acre pond will require 22,000 bank cubic yards (bcy) of new embankment material.

Other essential components include two pumps (primary and secondary), each rated at approximately 100 HP. The irrigation systems will feature two center pivots, i.e., Sprinkler 1 (Gold Color) and Sprinkler 2 (Green Color), as shown in Figure 5-6. Table 5-3 demonstrates each center pivot's characteristics and required piping.

The summary of the estimated construction cost associated with this Alternative 2 is shown in Table 5-4. The detailed breakdown of the costs is provided in Appendix E.

Table 5-4 Summary of the Construction Costs for the Alternative 2 - Full Reuse System		
Work Item	**Quantity**	**Construction Costs**
New 6.5 Acre, 9' Deep Lagoon #4	1	$6,732,000
New Pumps	2	$557,000
Valve and Bypass Piping	-	$88,000
Center Pivot Installation	2	$1,878,000
Total Construction Costs		$9,255,000

5.2.3 Alternative No. 3 – Full Evaporative System

This alternative will eliminate the discharging of the treated wastewater directly into Sand Hollow Creek. A large storage pond will be constructed to store all the effluent from the existing treatment system until it can be evaporated through natural evaporation and enhance systems using multiple mechanical evaporators.

The effluent discharge will be redirected to a sizable storage pond within the Parma WWTP rather than into Sand Hollow Creek. Natural evaporation from the pond is anticipated from February to November, with heightened evaporation rates utilized during the summer. Mechanical evaporators will be operated from February to November to enhance the evaporation process further. A mechanical evaporator accelerates water evaporation by dispersing wastewater into fine droplets through high-speed nozzles or fans, increasing surface area and promoting rapid vaporization. It typically uses mechanical energy, such as motor-driven arms or spray lances, to create controlled mist patterns for efficient evaporation. These systems are widely used in wastewater treatment to reduce the volume of wastewater in ponds. An example of the mechanical evaporator, Landshark 2.0 from Resource West Inc., is shown in Figure 5-7.

Figure 5-7 Landshark 2.0 Evaporator from Resource West Inc.

The necessary storage pond area and the quantity of mechanical evaporators are determined based on an analysis of existing hydraulic system data.

This alternative is designed for the population capacity in 2027 for an estimated 2,227 people. Assuming a steady annual population growth rate of 1.00% since the 2020 census count of 2,096, the projected population for December 2046 is approximately 2,704. The increased influent due to population growth of the City of Parma will be accommodated by the decrease in I&I flow entering into the Parma WWTP. Any new population growth needs to be addressed by the developers to offset any subsequent increase in the influent flow entering into the WWTP. Moreover, additional storage pond and mechanical evaporators can facilitate this increased flow via population growth or commercial developments.

Precipitation and evaporation averages are from the same ET-IWDR source website. In this calculation, zero seepage is assumed from the ponds for a conservative analysis, and influent data is derived from per capita flow rates and projected population figures through the design period ending in 2046.

In the current configuration, the three lagoons have a combined surface area of 7.59 acres and a volume of 9.98 million gallons. All ponds have a 3 ft freeboard. Our calculations indicate that a future storage pond covering 6.00 acres with a volume capacity of 14.5 million gallons will be necessary for the full evaporation alternative. The future storage pond #4 is shown in Figures 5-8. This alternative requires the existing larger Lagoon #1 to function as a winter storage pond alongside pond #4 so that maximum storage capacity can be available during winter months. The flow diagram of this Alternative is shown in Figure 5-9.

The hydraulic diagram in Figure 5-10 illustrates the projected water volume (shown in blue), total pond capacity (shown in red), and population (shown in green). The estimated water volume must remain below the total pond capacity. A series of mechanical evaporators will be required over this time. If we consider Landshark 2.0 evaporators at a wastewater total dissolved solids (TDS) of 50 mg/L, then from January 2027, 45 evaporators will be required.

Figure 5-8 Evaporative Pond #4 for Alternative 3 – Full Evaporative System

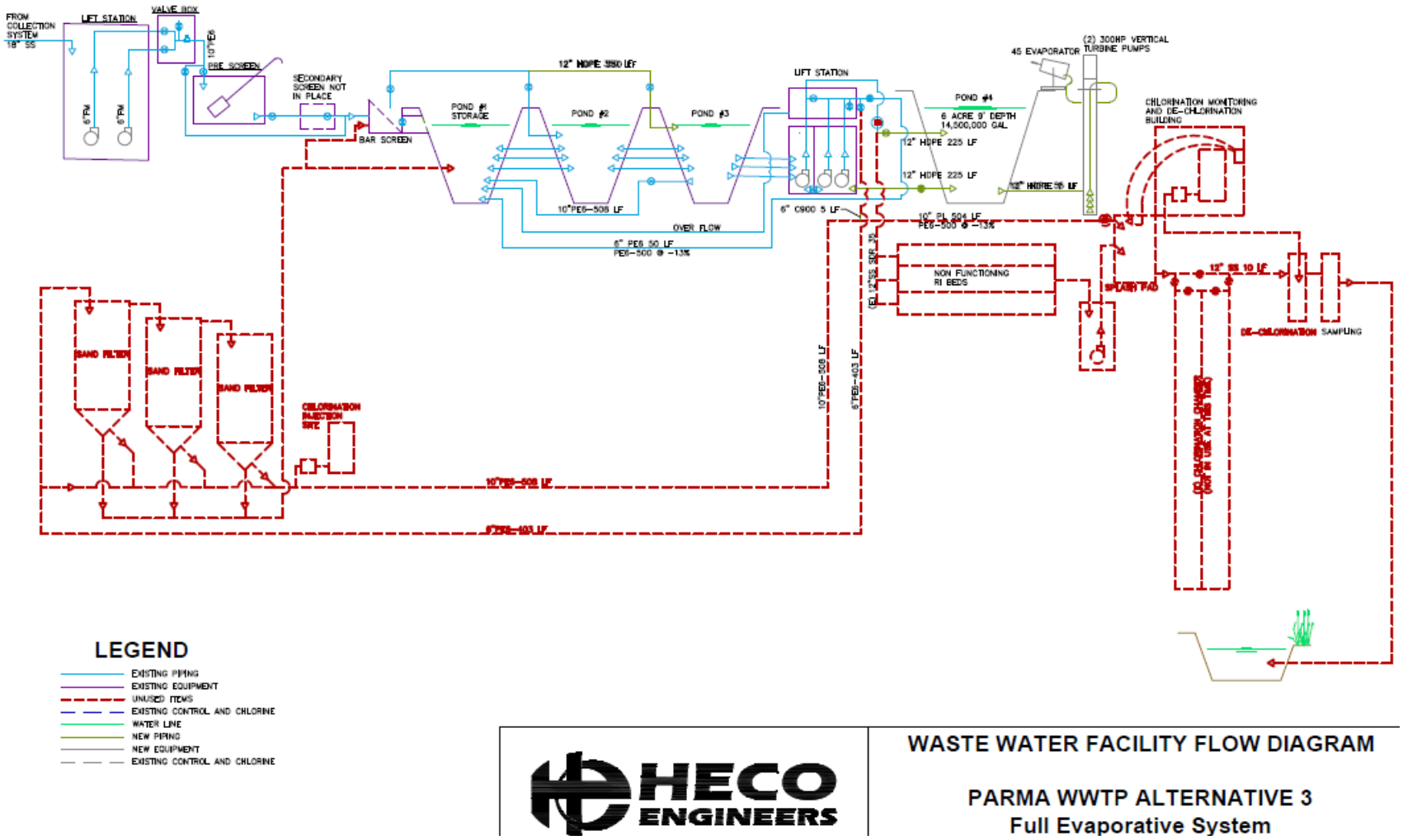


Figure 5-9 Flow Diagram for Alternative 3 - Full Evaporative System

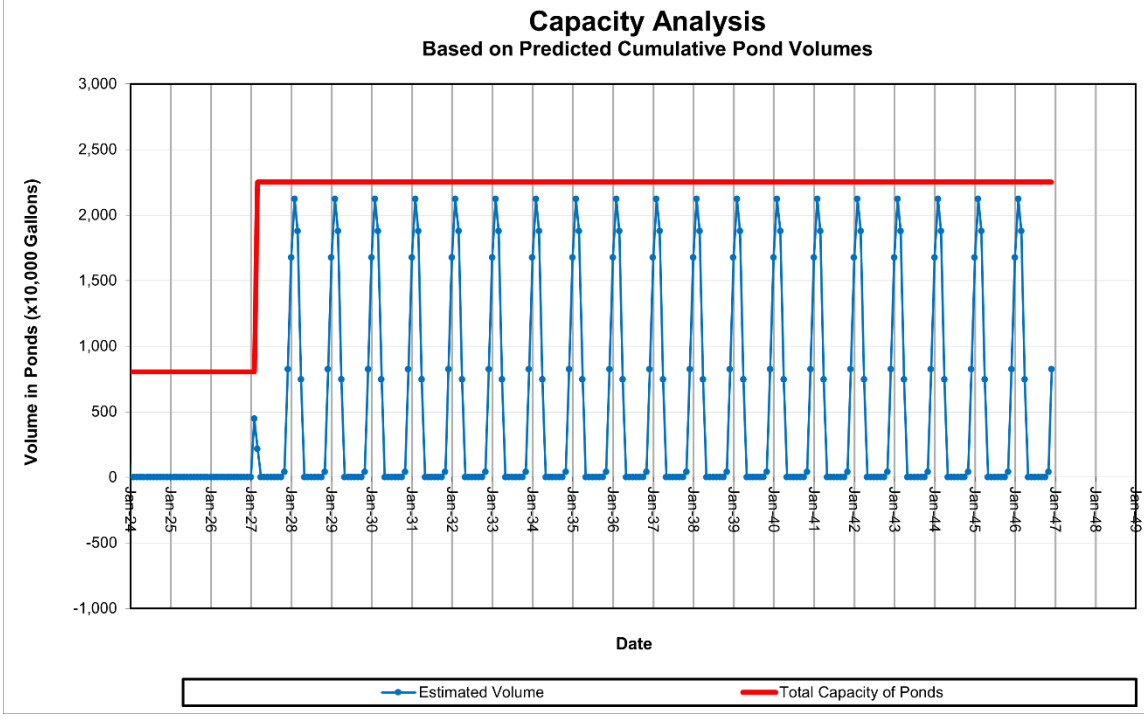


Figure 5-10 Hydraulic Analysis for Alternative 3 - Evaporative Pond Capacity

5.2.3.1 Emergency Discharge

If precipitation levels exceed the average and evaporation rates are lower, treated wastewater (effluent) may be discharged into Sand Hollow Creek during the months of October through April within a water year.

5.2.3.2 Alternative 3 Construction Costs

In this alternative, the major components are the 6-acre storage pond and multiple mechanical evaporators. The storage pond #4 will have 9 ft depth and 3 ft freeboard with a volume capacity of 14.5 million gallons. The existing bank materials from Rapid Infiltration (RI) beds and adjacent areas have a cut total of 66,000 lcy. Developing perimeter embankments for the 6-acre pond will require 20,000 bcy of new embankment material. Other essential components include two pumps (primary and secondary), each with approximately 300 HP. Moreover, a 1650 ft, 10-inch pipe for the valve and bypass and additional piping for connecting storage pond and evaporator are also required.

The summary of the estimated construction cost associated with this Alternative 3 is shown in Table 5-5. The detailed breakdown of the costs is provided in Appendix E.

Table 5-5 Summary of the Construction Costs for the Alternative 3 - Full Evaporative System		
Work Item	**Quantity**	**Construction Costs**
Existing Dike Widening	-	$120,000
Lagoon 4 Construction - 6 Acre	1	$6,149,000
New Pumps	2	$1,129,000
New Valve and Bypass Piping	-	$92,000
New Landshark 2.0 Evaporators	45	$4,653,000
	Total Construction Cost	$12,143,000

5.2.4 Alternative No. 4 – Combined Discharge and Evaporative System

This alternative involves a hybrid system where evaporation and discharge to the creek will be utilized to meet the IPDES permit requirements. Fully evaporative systems are used for most of the warmer months of a year, such as from April to October and a combination of discharge and evaporation will be utilized during colder months such as November to March in a water-year. In the colder months, full discharge to the Sand Hollow Creek will be implemented in a given month provided that the discharged effluents will be in compliance with IPDES permit requirements, such as monthly BOD_5, TSS, 4-month rolling average TSS, and Phosphorus limits. According to DEQ personnel, the 4-month rolling average TSS assumes that the no-discharge months will be considered 0 TSS values for calculation of the rolling average TSS.

This alternative is designed for the population capacity in 2027 for an estimated 2,227 people. Assuming a steady annual population growth rate of 1.00% since the 2020 census count of 2,096, the projected population for December 2046 is approximately 2,704. The increased influent due to population growth of the City of Parma will be accommodated by the decrease in I&I flow entering into the Parma WWTP. Any new population growth needs to be addressed by the developers to offset any subsequent increase in the influent flow entering into the WWTP. Moreover, additional storage pond and mechanical evaporators can facilitate this increased flow via population growth or commercial volume.

To address the current population capacity, an additional storage pond of 4 Acres with a volume capacity of 7.4 million gallons and a combination of mechanical evaporators are required. The effluent from the storage pond will be discharged into Sand Hollow Creek in alternating months between November to March of a water-year. From April to October, the effluent will be evaporated by mechanical evaporators from lagoons #2, #3 and the storage pond instead of being discharged into the creek to comply with the IPDES discharge permit. Moreover, natural evaporation from the ponds is expected from February to November, with increased rates during the summer. The required storage pond area and the number of mechanical evaporators is determined through a detailed analysis of the existing hydraulic system data.

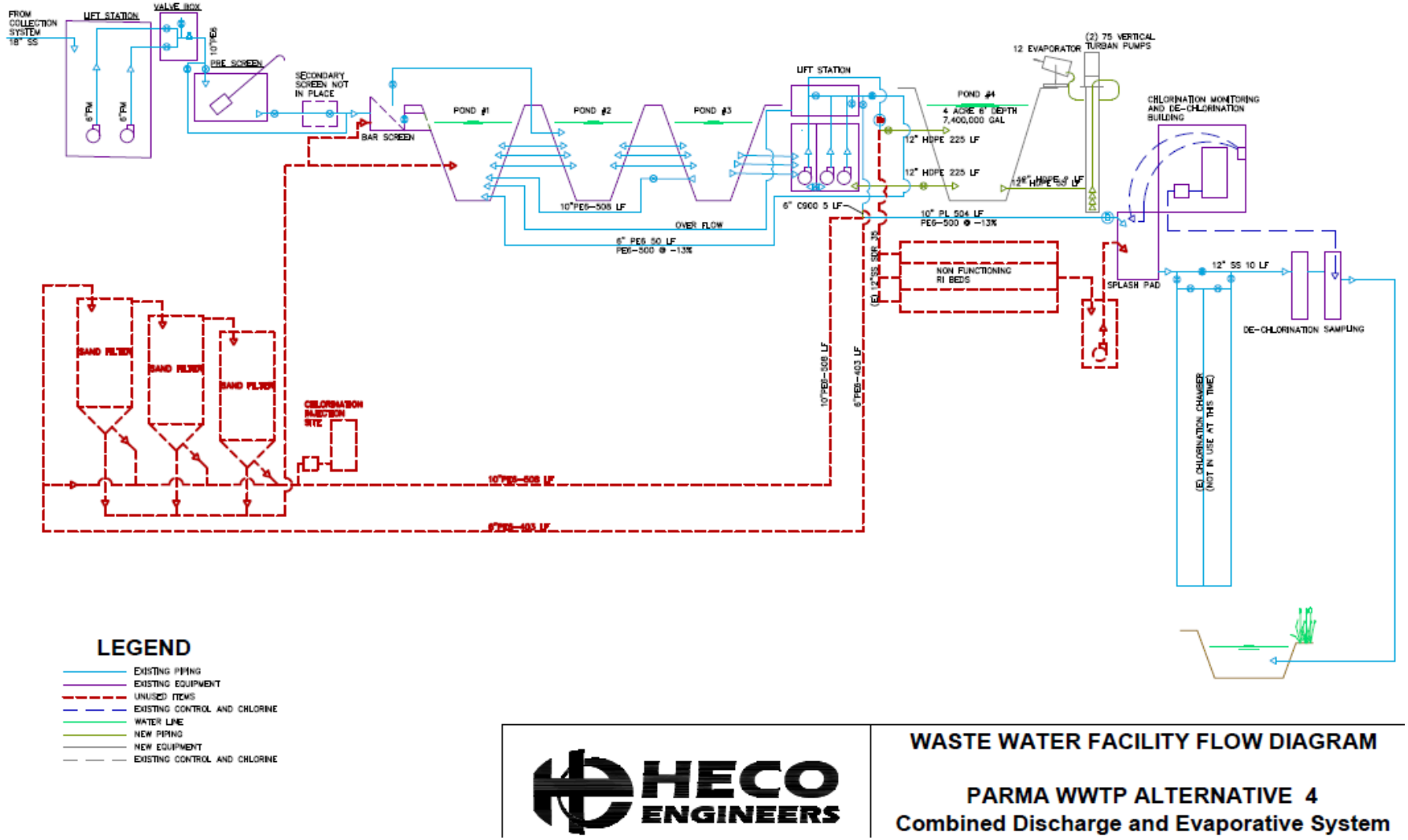


Figure 5-11 Flow Diagram for Alternative 4 - Combined Discharge and Evaporation

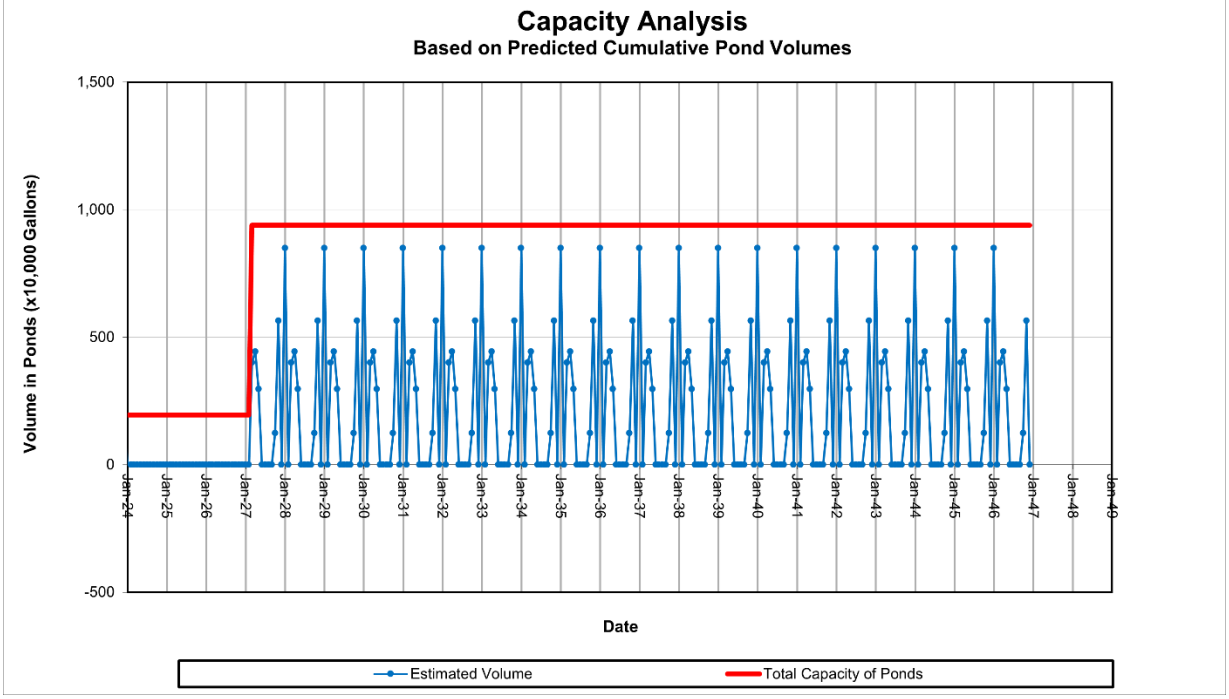


Figure 5-12 Hydraulic Analysis for Alternative 4 - Evaporative Pond Capacity

Precipitation and evaporation averages data are taken from the same ET-IWDR source website. In this calculation, zero seepage is assumed from the ponds due to the synthetic liner, and influent data is derived from per capita flow rates and projected population growth offset by decrease of I&I through the design period ending in 2046.

In the current configuration, three lagoons have a combined surface area of 7.59 acres and a volume of 9.98 million gallons. A 3-foot freeboard is applied to all ponds. Our calculations indicate that an additional pond of 4-acres with an average depth of 6 ft and a freeboard of 3 ft is required for sufficient evaporation and storage during winter months. The flow diagram of this Alternative is shown in Figure 5-11. The hydraulic diagram in Figure 5-12 illustrates the projected water volume (shown in blue), total pond capacity (shown in red), and population (shown in green). The estimated water volume must remain below the total pond capacity for at least the design period. To ensure this, a series of mechanical evaporators will be required during the design period.

If we consider Landshark 2.0 evaporators at a wastewater TDS of 50 mg/L, then 12 evaporators are required from January 2027.

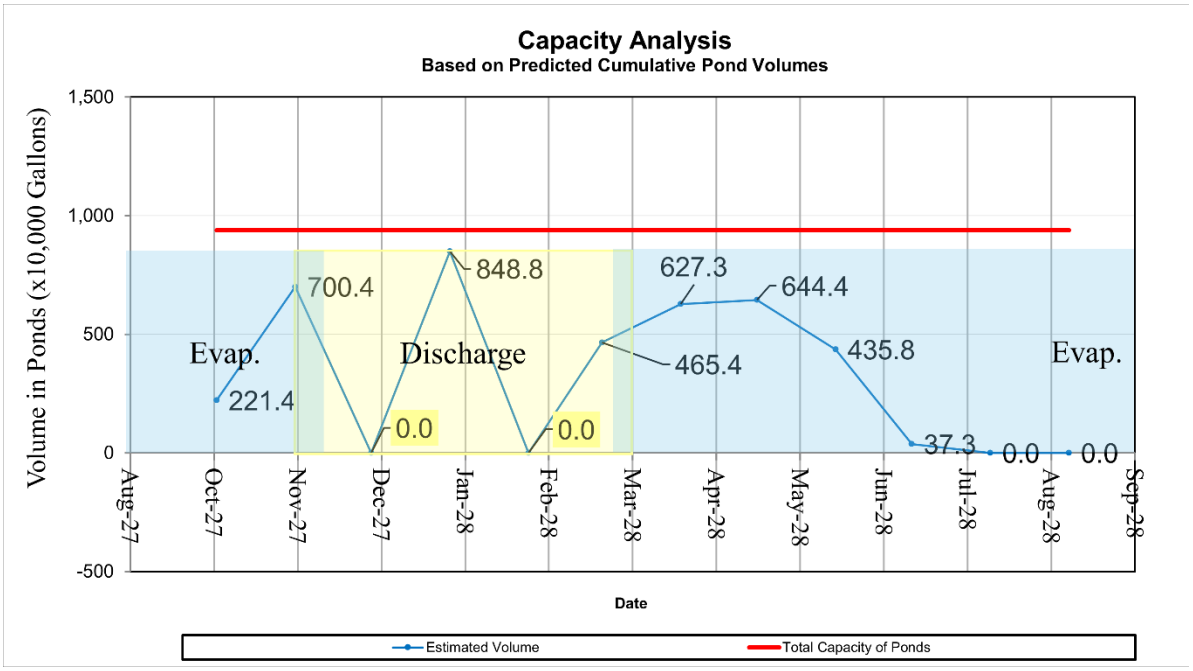


Figure 5-13 Discharge profile for Alternative 4 – Combined Discharge and Evaporation in a Typical Water-Year

The discharge profile in a typical water-year for Alternative 4 is shown in Fig. 5-13. The yellow shades indicate the combination of discharge and storage period while the light blue shade indicate the evaporation system.

5.2.4.1 Alternative 4 Construction Costs

The major components of this alternative are the mechanical evaporators and additional storage pond. The existing bank materials from Rapid Infiltration (RI) beds have a cut total of 13,000 lcy. Developing perimeter embankments for the 4-acre pond will require 9,000 bcy of new embankment material. Other essential components include two pumps (primary and secondary), each with approximately 100 HP. Moreover, an 1100 ft, 8-inch pipe for the valve and bypass and additional piping for connecting Lagoon #3 to the storage pond and evaporators is also required. The estimated construction costs of Alternative 4 are shown in Table 5-6. The detailed breakdown of the costs for Alternative 4 are provided in Appendix E.

Table 5-6 Summary of the Construction Costs for the Alternative 4 - Combined Discharge and Evaporation System		
Work Item	**Quantity**	**Cost**
Lagoon #4 Construction - 4 Acre	1	$3,557,000
New Pumps	2	$893,000
New Valve and Bypass Piping	-	$56,000
New Landshark 2.0 Evaporators	12	$1,345,000
Total Construction Cost		$5,851,000

5.2.5 Alternative No. 5 – Combined Reuse and Evaporative System

This alternative considers a combination of reuse and an evaporative system. This approach is advantageous because it requires less land for growing a crop like alfalfa and a smaller pond area for evaporation, with fewer mechanical evaporators needed. The crucial aspect of this alternative is the number of evaporators and the land and pond sizes that can be adjusted according to the constraints faced by the Parma WWTP. In this alternative, a portion of the city's influent is handled through the reuse system, with the necessary land area for irrigation determined accordingly. The remaining influent is handled via the evaporative system, with the required storage pond and the number of mechanical evaporators calculated based on the amount of wastewater entering the system.

This alternative is designed for the population capacity in 2027 for an estimated 2,227 people. Assuming a steady annual population growth rate of 1.00% since the 2020 census count of 2,096, the projected population for December 2046 is approximately 2,704. The increased influent due to population growth of the City of Parma will be accommodated by the decrease in I&I flow entering into the Parma WWTP. Any new population growth needs to be addressed by the developers to offset any subsequent increase in the influent flow entering into the WWTP. Moreover, additional storage pond and mechanical evaporators can facilitate this increased flow via population growth or commercial developments.

In this study, influent data from the Parma WWTP was collected by city personnel. The required land area for the reuse system and the additional pond size needed to store water before reuse was determined. Assuming 50% of the annual influent volume is treated in the reuse system, our calculations show that for average precipitation levels, approximately 25 acres of land are required for sufficient evapotranspiration of alfalfa. In a scenario of maximum precipitation, the land required for alfalfa irrigation increases to 30 acres.

In this alternative, Sprinkler 1 (Gold Color), shown in Figure 5-6, is sufficient to cover the required areas for alfalfa irrigation. The characteristics of this irrigation system, such as radius and rotation angle, are provided in Table 5-7. The coverage of land and fluid flow in gallons per minute by this center pivot is also shown in the table. Moreover, the associated piping sizes and lengths are also estimated.

Table 5-7 Summary of the Central Pivot Systems for the Alternative 5 – Combined Reuse and Evaporative System						
Center Pivot Systems	**Radius** (ft)	**Rotation Angle** (Degree)	**Alfalfa Irrigation Area** (Acres)	**Fluid Flow** (GPM)	**Pipe Size** (in)	**Length of Piping** (ft)
Sprinkler 1 (Gold)	640	360	30	132	6	876
Additional Central Piping	-	-	-	-	6	1100
Valve and Bypass	-	-	-	-	12	880

The remaining 50% of the annual influent volume is treated through an evaporative system, necessitating the determination of the additional storage pond size and the number of mechanical evaporators required. Our calculations indicate that a storage pond area of 6 acres with a 9 ft depth and 3 ft freeboard with a volume capacity of 14.5 million gallons will be required for facilitating necessary evaporation. The flow diagram of this Alternative is shown in Figure 5-14.

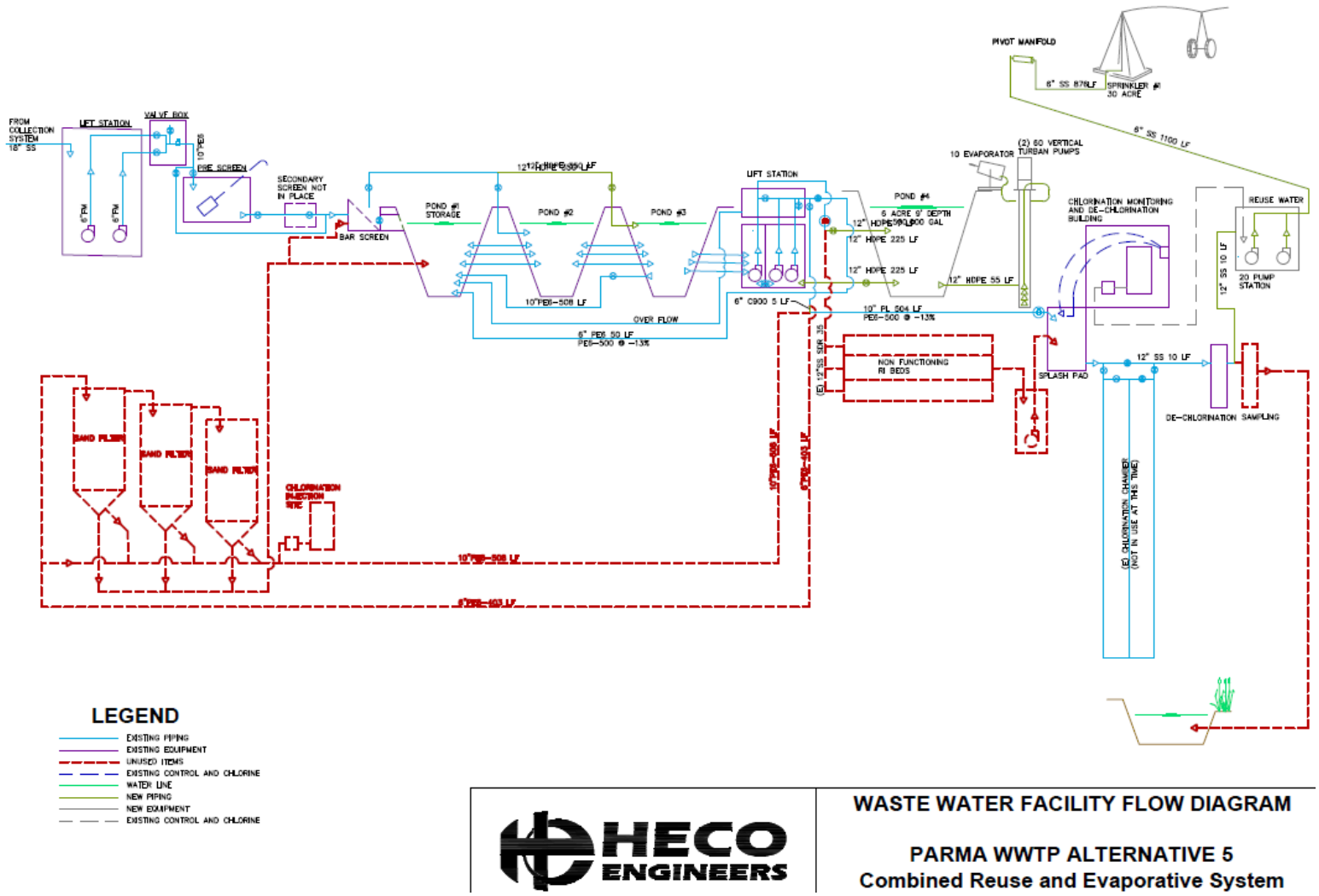


Figure 5-14 Flow Diagram for Alternative 5 - Combined Reuse and Evaporative System

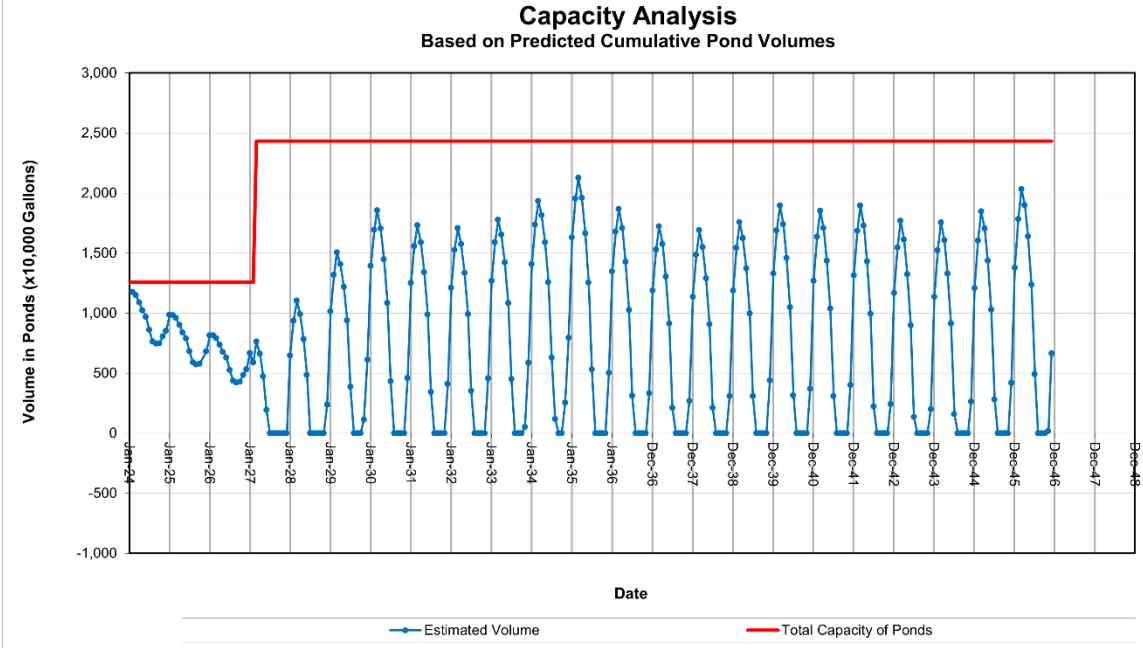


Figure 5-15 Hydraulic Analysis for Alternative 5 - Evaporative Pond Capacity

The accompanying Figure 5-15 illustrates the estimated volume of water (blue line) that needs to evaporate, the total capacity of the ponds (red line), and the population (green line). To be an effective evaporative system, the estimated volume of water must remain below the total storage ponds capacity over the design years. A range of mechanical evaporators will be necessary to ensure the blue line stays below the red line for at least the design period.

If we consider Landshark 2.0 evaporators at a wastewater TDS of 50 mg/L, 10 mechanical evaporators will be required.

5.2.5.1 Alternative 5 Construction Costs

This alternative system requires land for alfalfa irrigation, a storage pond, evaporators, and sprinklers with various-sized pipes. This system will be assumed to access land near the WWTP site for the reuse site, as identified in Figure 5-3. The proposed pond design includes several key components. The pond will be 6 acres with a depth of 9 ft, a freeboard of 3 ft, with a volume capacity of 14.5 million gallons. Moreover, a wastewater liner for the pond is required. In this alternative, the major components are the 6-acre storage pond and multiple mechanical evaporators. The storage pond #4 will have 9 ft depth and 3 ft freeboard with a volume capacity of 14.5 million gallons. The existing bank materials from Rapid Infiltration (RI) beds and adjacent areas have a cut total of 66,000 lcy. Developing perimeter embankments for the 6-acre pond will require 20,000 bcy of new embankment material.

Other essential components include two pumps (primary and secondary), each with approximately 60 HP required for evaporators. Two more pumps (primary and secondary), each with 20 HP will be required for connecting lagoons and storage ponds to the center pivots. In this alternative, only one center pivot, Sprinkler 1 (Gold Color), as shown in Figure 5-6, is sufficient for the alfalfa irrigation requirement. The characteristics of the center pivots and required piping and fluid flow are provided in Table 5-7. The other major component of this alternative is the mechanical evaporators. The details of the required evaporators to facilitate necessary evaporation of the effluent are provided in Table 5-8 for this alternative. The estimated construction costs of Alternative 5 are shown in Table 5-8. The detailed breakdown of the costs for Alternative 5 are provided in Appendix E.

Table 5-8 Summary of the Construction Costs for the Alternative 5 - Combined Reuse and Evaporative System

Work Item	Quantity	Construction Costs
New 6 Acre, 6' Deep, 3' freeboard	1	$6,345,000
New Pumps	2	$1,125,000
Valve and Bypass Piping	-	$93,000
Pivot Irrigation System	-	$757,000
New Landshark 2.0 Evaporators	10	$1,128,000
	Total Construction Cost	$9,448,000

5.3 No Action Alternative

DEQ requires the No Action alternative to be considered in all wastewater facility improvement scenarios to ensure system improvement costs are accurately justified with system benefits. Operation and maintenance costs will likely increase. The wastewater treatment facility will experience continued IPDES permit violations. DEQ already issued non-compliance and violation letters to the City regarding the current discharge of effluent water quality to the Sand Hollow Creek. Based on continued permit violations, DEQ will likely issue additional Notice of Violation letters, and the City may face civil, administrative, and/or criminal penalties. Compliance orders or agreement schedules generally mandate the implementation and schedule of wastewater treatment system improvements, which are not expected to favor City budget planning.

Selection of the No Action alternative will lead to further deterioration of the wastewater system infrastructure and will likely result in future higher system rehabilitation and improvement costs. unplanned repairs that must be completed immediately to maintain the system's normal function. Also, construction costs tend to increase over time, so the same amount spent on planned system improvements will likely complete more work now than in 5 or 10 years. Finally, the No Action alternative may leave available grant

funds unused or may not be maximizing the funding resources available to the City. Project funding is generally becoming harder to obtain, and there may be no guarantee that the same level of funding will be available in the future. The No Action alternative is not recommended.

5.4 Comparison of Costs of Alternatives

A total estimated construction cost summary for the alternatives is displayed in Table 5-9. The results in the table indicate that on an initial construction cost basis, Alternative 4 lowest cost alternative.

Table 5-9 Construction Costs for the Parma WWTP Discharge Alternatives

Alt. No.	Alternative Description	Construction Cost
2	Full Reuse System	$9,255,000
3	Full Evaporative System	$12,143,000
4	Combined Discharge and Evaporative System	$5,851,000
5	Combined Reuse and Evaporative System	$9,448,000

NOTE: Shaded Cell Represents the Lowest Construction Cost for the Parma WWTP Discharge Alternatives

5.5 Phased Construction

As discussed in previous sections, facility improvements will likely have to be staged or phased in some way due to the overall costs and the financial limitations of the City of Parma. It is anticipated that the first phase will address improvements at the existing wastewater treatment facility to increase treatment quality, address high-priority maintenance and operational issues, and provide for the collection of important data necessary for future facility upgrades.

5.6 Wastewater Management Options

5.6.1 Conventional Technologies

Conventional technologies refer to technologies that are commonly used for wastewater management and which do not meet the requirements for innovative or alternative technologies described in Section 5.6.2 Below are potential alternatives that may be appropriate for Parma, which utilizes conventional technologies.

5.6.2 Innovative and Alternative Technologies

Per 40 CFR 35.908, it is the policy of the EPA to encourage and, where possible, assist in developing innovative and alternative technologies for the construction of wastewater treatment works. Projects or portions of projects the EPA Regional Administrator determines to meet criteria for innovative or alternative technologies in Subpart E of Part 35 (40 CFR 35) may receive 85 percent grants. This designation and the associated project funding have several requirements and restrictions. A project or portions of a project may be designated innovative or alternative based on a facilities plan or the basis of plans and specifications. A project that has been designated innovative based on the facilities plan may lose that designation if plans and specifications indicate that it does not meet the appropriate criteria stated in Subpart E of Part 35.

Alternative wastewater treatment processes and techniques are defined by EPA as proven methods that provide for the reclaiming and reuse of water, productively recycle wastewater constituents, otherwise eliminate the discharge of pollutants, or recover energy. In the case of processes and techniques for the treatment of effluents, these include land treatment, aquifer recharge, aquaculture, silviculture, direct reuse for industrial and other non-potable purposes, horticulture, and revegetation of disturbed lands. Total containment ponds and ponds for treating and storing wastewater before land application and other processes necessary to provide minimum levels of pre-application treatment are considered part of alternative technology systems. The term “alternative” does not include collector sewers, interceptors, storm or sanitary sewers or separation thereof, or major sewer rehabilitation, except insofar as they are alternatives to conventional treatment works for small communities under Section 35.915-1(e), which defines small communities as municipalities with a population of 3,500 or less.

Innovative wastewater treatment processes and techniques are developed methods that have not been fully proven under the circumstances of their contemplated use and which represent a significant advancement over the state of state-of-the-art in terms of meeting the national goals of cost reduction, increased energy conservation or recovery, greater recycling and conservation of water resources (including preventing the mixing of pollutants with water), reclamation or reuse of effluents and resources (including increased productivity of arid lands), improved efficiency and/or reliability, the beneficial use of sludges or effluent constituents, better management of toxic materials, or increased environmental benefits. Innovative wastewater treatment processes and techniques are generally limited to new and improved applications of alternative wastewater treatment processes and techniques.

5.6.3 Low-Cost Alternatives for Smaller Communities

Parma is a small community with a 2020 Census population of 2,096. EPA defines small communities as municipalities with less than 3,000 people. The alternatives identified above consider the community's small size and the limited resources available for project funding and ongoing annual facility operation and maintenance. It will be very important for the City to consider not just the initial capital costs of each project but also the continuing operation and maintenance costs to keep the wastewater facilities economically feasible and sustainable for the citizens of Parma.

5.6.4 Municipal Treatment Wastes from Industrial and Federal Facilities

The City of Parma has influent waste contribution from major industrial facilities. No known additional industrial facilities are proposed at present. If industrial facilities approach the City about connection to the sewer collection and wastewater treatment facilities, the City plans to negotiate an industrial discharge agreement specific to each facility. It is anticipated that industrial pre-treatment requirements will be part of the agreement.

5.6.5 Other Technologies

No additional technologies have been considered viable alternatives for the City of Parma.

6.0 SUSTAINABILITY (GREEN) INFRASTRUCTURE EFFORTS

6.1 Introduction

The "Rules for Administration of Planning Grants for Wastewater Facilities," in IDAPA 58.01.22.020.023.f, define "Sustainability Efforts" as "prospective efforts at energy conservation, water conservation, extending the life of capital assets, green building practices, and other environmentally innovative approaches to infrastructure repair, replacement, and improvement."

6.2 Management-Based Efforts

6.2.1 Incorporate Energy Audit by Idaho Power

The City of Parma may schedule an energy audit by Idaho Power. There is no cost for the energy audit. Idaho Power can perform the audit and provide the findings as part of this section of the Sustainability Efforts documentation.

6.3 Energy Conservation Efforts

6.3.1 Evaluate Variable Frequency Drive (VFD) Pumps

Any new and replacement pumps used in the proposed project alternatives are planned to be variable frequency drive (VFD) pumps. A pump motor operated continuously at full-rated speed is inefficient when maximum flow is not required. The pump and motor will also wear out faster than if the pump speed is regulated with a VFD. VFD pumps also will typically require a smaller emergency generator size than equivalent rated non-VFD pumps that are started and run constantly since powering a motor directly results in high starting currents. The current drawn from a line-started motor can be over six to seven times the motor's full load amperage rating.

VFD pumps allow for improved control of the pump's operation and output. For example, VFDs can easily be configured to maintain the desired water pressure or flowrate by regulating the speed of the pump motor. VFDs control the speed of alternating current (AC) induction motors by controlling the frequency and voltage supplied to the motor. While mechanical devices can be installed at a pump's output to adjust the flow, a VFD regulates flow by adjusting the motor/pump speed. VFD pumps provide the following benefits:

- Reduces motor starting current,
- Uses a minimum energy amount,
- Reduces motor wear and tear,
- Provides a degree of motor protection,
- Reduces required maintenance,
- Provides extensive diagnostics and simplifies the design of the flow control system.

6.3.2 Evaluate Energy-Efficient Motors that Meet National Electrical Manufacturers Associate (NEMA) Premium Specification

Where applicable, motors that will be used in the proposed project alternatives are planned to be National Electrical Manufacturers Association (NEMA) Premium energy-efficient motors. NEMA Premium motors and optimized systems reduce electrical consumption, reducing pollution associated with electrical power generation. Electric motors significantly impact the total energy operating cost for pumping, and wastewater treatment needs to be associated with a wastewater system. Electric motors vary in terms of energy efficiency. Improving motor efficiency represents a significant opportunity to save energy. The NEMA Premium program identifies higher-efficiency motors that will save users money and improve system reliability. Motor efficiency normally varies depending on horsepower and load percentage, so no single efficiency value applies to all NEMA Premium efficiency motors. In general, efficiency levels become higher as motor horsepower increases. As motor horsepower increases, the difference in efficiency between premium and standard efficiency motors tends to decrease. Still, even small increases in efficiency can significantly impact energy consumption and costs over the life of a motor.

6.3.3 Evaluate High-Efficiency Lighting/Lighting Controls

High-efficiency lighting involves light-emitting diodes (LEDs) and is currently the most energy-efficient and rapidly developing lighting technology. In addition, LEDs emit only small amounts of heat, typically resulting in a longer lifetime than other lighting types. High-efficiency lighting will be used as part of the proposed project.

6.3.4 Evaluate Aeration Improvements

Efficient aeration improvements for each viable wastewater alternative will be implemented.

6.3.5 Evaluate Supervisory Control and Data Acquisition (SCADA) System Installation

Supervisory control and data acquisition (SCADA) is the standard term for computer systems that gather and analyze real-time data. SCADA systems are becoming commonly used in wastewater utility management, especially for larger and more complex wastewater systems. Wastewater system managers, utilities, and manufacturers use SCADA due to the control it offers for system operators and the consistent data it provides. Instant information access allows operators to make decisions and quickly analyze data regularly and consistently. In addition, digital monitoring will enable operators to receive accurate and real-time data, reducing wastewater treatment plant or collection system operating costs. Data available to operators by SCADA systems offers system optimization needs and allows cities to address system deficiencies proactively. SCADA has changed how utilities operate by improving how operators absorb and interact with data. As part of the wastewater system alternatives, the SCADA system will be evaluated if it requires upgrades or modifications depending on the selected alternative and associated components.

7.0 PREFERRED ALTERNATIVE DESCRIPTION

8.0 REFERENCES

[1] Rice, E. W., Bridgewater, L., & American Public Health Association (Eds.). (2012). *Standard Methods for the Examination of Water and Wastewater* (Vol. 10). Washington, DC: American Public Health Association.

[2] Venkiteshwaran, K., McNamara, P. J., & Mayer, B. K. (2018). Meta-analysis of non-reactive phosphorus in water, wastewater, and sludge, and strategies to convert it for enhanced phosphorus removal and recovery. *Science of the total environment*, *644*, 661-674.

[3] Evapotranspiration and Consumptive Irrigation Water Requirements for Idaho (https://et-idwr.idaho.gov)

[4] Tertiary Phosphorus Removal, March 2019, The Water Research Foundation

APPENDIX A

IPDES PERMIT

United States Environmental Protection Agency
Region 10
1200 Sixth Avenue Suite 900
Seattle, Washington 98101-3140

Authorization to Discharge Under the National Pollutant Discharge Elimination System

In compliance with the provisions of the Clean Water Act, 33 U.S.C. §1251 *et seq.*, as amended by the Water Quality Act of 1987, P.L. 100-4, the "Act",

The City of Parma
P.O. Box 608
Parma, Idaho 83660

is authorized to discharge from a wastewater treatment facility located in Parma, Idaho, at the following location:

Outfall	Receiving Water	Latitude	Longitude
001	Sand Hollow Creek	43.7867° N	116.9594° W

in accordance with discharge point(s), effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective April 1, 2017

This permit and the authorization to discharge shall expire at midnight, March 31, 2022

The permittee shall reapply for a permit reissuance on or before October 2, 2021, 180 days before the expiration of this permit if the permittee intends to continue operations and discharges at the facility beyond the term of this permit.

Signed this 24 day of January, 2017.

Christine Psyk, Acting Director
Office of Water and Watersheds, Region 10
U.S. Environmental Protection Agency

Schedule of Submissions

The following is a summary of some of the items the permittee must complete and/or submit to EPA during the term of this permit:

Item	Due Date
Discharge Monitoring Reports (DMRs)	DMRs are due monthly and must be postmarked or submitted electronically on or before the 20th day of the month, following the monitoring month. (See I. B and III.B)
Quality Assurance Plan (QAP)	The permittee must provide EPA and IDEQ with written notification that the QAP has been developed and implemented within 180 days after the effective date of the final permit (see II.B.). The QAP must be kept on site and made available to EPA and IDEQ upon request.
Operation and Maintenance (O&M) Plan	The permittee must provide EPA and IDEQ with written notification that the O & M Plan has been developed and implemented within 180 days after the effective date of the final permit (see II.A). The Plan must be kept on site and made available to EPA and IDEQ upon request.
NPDES Renewal Application	The application must be submitted at least 180 days before the expiration date of the permit (see V.B.).
Surface Water Monitoring Report	A surface water monitoring report must be submitted annually.
Twenty-Four Hour Notice of Noncompliance Reporting	The permittee must report certain occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances. (See III.G. and I.B.4)
Emergency Response and Public Notification Plan	The permittee must develop and implement an overflow emergency response and public notification plan. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within 180 days of the effective date of this permit.
Compliance Schedule	The permittee must submit reports and plans as described in II.C. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date (see III.K.).
List of Industrial Users	The Permittee must develop and maintain a master list of the industrial users introducing pollutants to the POTW. The Permittee must submit the list to EPA within 180 days. (see Part II.E).
Enforceable municipal code.	The Permittee must develop a legally enforceable municipal code to authorize or enable the POTW to apply and enforce the requirements of sections 307 (b) and (c) and 402(b)(8) and (9) of the Act. The draft legal authority must be submitted to EPA for review and comment within 180 days of the effective date of the permit. (see Part II.E).

Table of Contents

I. Limitations and Monitoring Requirements

A. Discharge Authorization

During the effective period of this permit, the permittee is authorized to discharge pollutants from the outfalls specified herein to Sand Hollow Creek, within the limits and subject to the conditions set forth herein. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process and that are identified in this permit.

B. Effluent Limitations and Monitoring

1. The permittee must limit and monitor discharges from outfall 001 as specified in Tables 1 and 2. All figures represent maximum effluent limits unless otherwise indicated. The permittee must comply with the effluent limits in the tables at all times unless otherwise indicated, regardless of the frequency of monitoring or reporting required by other provisions of this permit.
2. Narrative limitations for floating, suspended or submerged matter: The permittee must not discharge floating, suspended, or submerged matter of any kind in concentrations causing nuisance or objectionable conditions or that may impair designated beneficial uses.

Table 1, below, presents the effluent limits for the City of Parma WWTP.

Table 1 Effluent Limits

Parameter	Units	Effluent Limits		
		Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit
Five-Day Biochemical Oxygen Demand (BOD_5)	mg/L	30	45	—
	lb/day	170	255	
	% removal	85% (min)	—	—
Total Suspended Solids (TSS)	mg/L	30	45	—
	mg/L	17.5 4-month rolling average		
	lb/day	170	255	—
	lb/day	99.2 4-month rolling average		
	% removal	85% (min)	—	—
E. coli Bacteria[1]	#/100 ml	126	—	576 instantaneous max limit
pH[2]	s.u.	6.5-9.0		
Total Residual Chlorine (TRC) – Interim[3]	mg/L	0.5	0.75	—
	lb/day	2.84	4.25	—
Total Residual Chlorine (TRC) – Final[3]	mg/L	0.074	—	0.186
	lb/day	0.42	—	1.05
Total Phosphorus, as P – Interim[4]	lb/day	6.46	—	—
Total Phosphorus, as P – Final (May – September)[4]	mg/L	0.070	0.141	—
	lb/day	0.40	0.80	—

Parameter	Units	Effluent Limits		
		Average Monthly Limit	Average Weekly Limit	Maximum Daily Limit

1. The average monthly E. coli count must not exceed a geometric mean of 126/100 mL based a minimum of five samples taken every three to seven days within a calendar month. See Part VI of the draft permit for definition of geometric mean.
2. The pH range must be maintained at all times
3. TRC are subject to a compliance schedule. TRC final limits apply beginning three years from the effective date of the permit. See Part II.C of the permit for additional details
4. Total Phosphorus limits are subject to a compliance schedule. Final limits apply beginning 9 years and 11 months after the effective date of the permit. See Part II.C of the permit for additional details.

Table 2 below presents the effluent monitoring requirements for the City of Parma WWTP. The sampling location must be after the last treatment unit and prior to discharge to the receiving water. The samples must be representative of the volume and nature of the monitored discharge. If no discharge occurs during the reporting period, "no discharge" shall be reported on the DMR.

In addition to the monitoring in Table 2, below, the facility must complete all monitoring described in Application Form 2A prior to application for reissuance.

Table 2 Effluent Monitoring Requirements

Parameter	Units	Sample Location	Sample Frequency	Sample Type
Flow	mgd	Effluent	Continuous	Recording
BOD_5	mg/L	Influent & Effluent	1/month	Grab
	lb/day	Influent & Effluent	1/month	Calculation[1]
	% Removal	--	--	Calculation[2]
TSS	mg/L	Influent & Effluent	1/month	Grab
	lb/day	Influent & Effluent	1/month	Calculation[1]
	% Removal	--	--	Calculation[2]
E. coli	colonies/100 ml	Effluent	5/month	Grab
pH	standard units	Effluent	5/week	Grab
Total Residual Chlorine	mg/L	Effluent	5/week	Grab
	lb/day	Effluent		Calculation[1]
Total Phosphorus as P	lb/day	Effluent	1/month	Grab
Total Ammonia as N	mg/L	Effluent	1/quarter	Grab
Dissolved Oxygen	mg/L	Effluent	1/quarter	Grab

1. Loading (in lb/day) is calculated by multiplying the concentration (in mg/L) by the corresponding flow (in mgd) for the day of sampling and a conversion factor of 8.34. For more information on calculating, averaging, and reporting loads and concentrations see the *NPDES Self-Monitoring System User Guide* (EPA 833-B-85-100, March 1985).
2. Percent Removal. The monthly average percent removal must be calculated from the arithmetic mean of the influent values and the arithmetic mean of the effluent values for that month using the following equation:

   (average monthly influent concentration – average monthly effluent concentration) ÷ average monthly influent concentration x 100. Influent and effluent samples must be taken over approximately the same time period.

3. Monitoring for narrative limitations for floating, suspended or submerged matter: The permittee must observe the surface of the receiving water in the vicinity of where the effluent enters the surface water once a month for any conditions violating the narrative criteria in Section I.B.2 of the permit. The permittee must maintain a written log of the observation which includes the date, time, observer, and whether there is presence of floating, suspended or submerged matter. The log must be retained and made available to EPA or IDEQ upon request.
4. The permittee must report within 24 hours any violation of the maximum daily limits for *E. coli* and TRC. Violations of all other effluent limits are to be reported at the time DMRs are submitted (See III.B. and III.H.).
5. The permittee must collect effluent samples from the effluent stream after the last treatment unit prior to discharge into the receiving waters.
6. For all effluent monitoring, the permittee must use sufficiently sensitive analytical methods which meet the following:
    a) Parameters with an effluent limit. The method must achieve a minimum level (ML) less than the effluent limitation unless otherwise specified in Table 1 Effluent Limits.
    b) Parameters that do not have effluent limitations.
        (i) The permittee must use a method that detects and quantifies the level of the pollutant, or
        (ii) The permittee must use a method that can achieve a maximum ML less than or equal to those specified in Appendix A. Minimum Levels;
    c) For parameters that do not have an effluent limit, the permittee may request different MLs. The request must be in writing and must be approved by EPA.
    d) See also Part III.D Monitoring Procedures
7. For purposes of reporting on the DMR for a single sample, if a value is less than the MDL, the permittee must report “less than {numeric value of the MDL}” and if a value is less than the ML, the permittee must report “less than {numeric value of the ML}.”
8. For purposes of calculating monthly averages, zero may be assigned for values less than the MDL, and the {numeric value of the MDL} may be assigned for values between the MDL and the ML. If the average value is less than the MDL, the permittee must report “less than {numeric value of the MDL}” and if the average value is less than the ML, the permittee must report “less than {numeric value of the ML}.” If a value is equal to or greater than the ML, the permittee must report and use the actual value. The resulting average value must be compared to the compliance level, the ML, in assessing compliance.

C. Surface Water Monitoring

The permittee must conduct surface water monitoring. Surface water monitoring must start immediately after the effective date of the permit and continue for the duration of the permit. Surface water monitoring must meet the following requirements:

1. To the extent practicable, surface water sample collection must occur on the same day as effluent sample collection.
2. All ambient samples must be grab samples.
3. The flow rate must be measured as near as practicable to the time that other ambient parameters are sampled.
4. Samples must be analyzed for the parameters listed in Table 3.
5. For all surface water monitoring, the permittee must use sufficiently sensitive analytical methods which meet the following:
   a) The method must detect and quantify the level of the pollutant, or
   b) The permittee must use a method that can achieve MLs less than or equal to those specified in Appendix A. The permittee may request different MLs. The request must be in writing and must be approved by EPA.

Table 3 Surface Water Monitoring Requirements[1]

Parameter	Units	Sample Location	Sample Frequency	Sample Type
Flow	Mgd	Upstream of treatment plant outfall	1/quarter	Grab
pH	standard units	Upstream of treatment plant outfall	1/quarter	Grab
Total Ammonia as N	mg/L	Upstream of treatment plant outfall	1/quarter	Grab
Dissolved Oxygen	mg/L	Upstream of treatment plant outfall	1/quarter	Grab
Total Phosphorus, as P	mg/L	Upstream of treatment plant outfall	1/quarter	Grab
Temperature	°C	Upstream of treatment plant outfall	1/quarter	Grab

1. Monitoring must be conducted under flow conditions typical for the quarter when sampling occurs. Samples should not be collected immediately after storm events.

6. Quality assurance/quality control plans for all the monitoring must be documented in the Quality Assurance Plan required under Part II.B., "Quality Assurance Plan".
7. The permittee must submit all surface water monitoring results for the previous calendar year for all parameters in an annual report to EPA and IDEQ by January 31st of the following year and with the application for renewal of this permit (see V.B.). The file must be in the format of one analytical result per row and include the following information: name and contact information of laboratory, sample

identification number, sample location in latitude and longitude (decimal degrees format), method of location determination (i.e., GPS, survey etc.), date and time of sample collection, water quality parameter (or characteristic being measured), analysis result, result units, detection limit and definition (i.e., MDL etc.), analytical method, date completed, and any applicable notes.

II. Special Conditions

A. Operation and Maintenance Plan

In addition to the requirements specified in Section IV.E. of this permit (Proper Operation and Maintenance), by 180 days after the effective date of this permit, the permittee must provide written notice to EPA and the IDEQ that an operation and maintenance plan for the current wastewater treatment facility has been developed and implemented. The plan shall be retained on site and made available on request to EPA and the State of Idaho. Any changes occurring in the operation of the plant shall be reflected within the Operation and Maintenance plan.

B. Quality Assurance Plan (QAP)

The permittee must develop a quality assurance plan (QAP) for all monitoring required by this permit. The permittee must submit written notice to EPA and the IDEQ that the Plan has been developed and implemented within 180 days of the effective date of this permit. Any existing QAPs may be modified for compliance with this section.

1. The QAP must be designed to assist in planning for the collection and analysis of effluent and receiving water samples in support of the permit and in explaining data anomalies when they occur.
2. Throughout all sample collection and analysis activities, the permittee must use the EPA-approved QA/QC and chain-of-custody procedures described in *EPA Requirements for Quality Assurance Project Plans* (EPA/QA/R-5) and *Guidance for Quality Assurance Project Plans* (EPA/QA/G-5). The QAP must be prepared in the format that is specified in these documents.
3. At a minimum, the QAP must include the following:
    a) Details on the number of samples, type of sample containers, preservation of samples, holding times, analytical methods, analytical detection and quantitation limits for each target compound, type and number of quality assurance field samples, precision and accuracy requirements, sample preparation requirements, sample shipping methods, and laboratory data delivery requirements.
    b) Map(s) indicating the location of each sampling point.
    c) Qualification and training of personnel.
    d) Name(s), address(es) and telephone number(s) of the laboratories used by or proposed to be used by the permittee.

4. The permittee must amend the QAP whenever there is a modification in sample collection, sample analysis, or other procedure addressed by the QAP.
5. Copies of the QAP must be kept on site and made available to EPA and/or the IDEQ upon request.

C. Schedules of Compliance

1. Total Residual Chlorine
   a) The permittee must achieve compliance with the final TRC limitations in Table 1 by March 31, 2020.
   b) Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks and reports listed in Table 4 and Paragraph 3.

Table 4 Tasks Required Under the Schedule of Compliance for Total Residual Chlorine

Task No.	Due By	Task Activity
1	March 31, 2018	**Engineering Facility Plan** The permittee must complete a study that identifies both short and long term steps necessary to reduce TRC in outfall 001 to meet the effluent limits. Deliverable: The permittee must provide a preliminary engineering study to IDEQ for review and necessary approval and submit a copy of the approved study to EPA.
2	March 31, 2019	**Financing and Engineering Design** The permittee must complete final engineering design and secure funding to complete facility improvements. Deliverable: The permittee must provide written notification of the IDEQ-approved final design and secured funding.
3	March 31, 2020	**Construction, Commissioning and Achieve Compliance with TRC Limits** The permittee must achieve compliance with the final effluent limitations. Deliverables: The permittee must submit construction completion report to EPA and IDEQ. The permittee must provide written verification to the EPA and IDEQ that the final water quality based effluent limitations can be reliably met.

2. Total Phosphorus
   a) The permittee must achieve compliance with the final total phosphorus in Table 1 by February 28, 2027.
   b) Until compliance with the effluent limits is achieved, at a minimum, the permittee must complete the tasks and reports listed in Table 5 and Paragraph 3.

Table 5 Tasks Required Under the Schedule of Compliance for Total Phosphorus

Task No.	Due By	Task Activity
1	March 31, 2018	**Facility Planning** The permittee must develop a facility plan that evaluates the alternatives that would allow the facility to meet the final water quality-based effluent limitations for phosphorus, including but not limited to treatment plant upgrades, seasonal re-use, and pollutant trading projects. Deliverable: The permittee must provide the facility plan to the IDEQ for review and the necessary approvals and submit a copy to the EPA.
2	March 31, 2019	**Select Alternative** The permittee must select an alternative to come into compliance with the total phosphorus limit. Deliverable: The permittee must provide IDEQ and EPA with written notice of the selected alternative(s).
3	March 31, 2022	**Evaluate and Obtain Financing** The permittee must acquire funds to complete facility upgrades and/or the alterative mitigation plan necessary to comply with the final effluent limitations for ammonia and TP by the end of the compliance schedule. Deliverable: The permittee must provide written notification to the EPA and the IDEQ that the preliminary design is complete.
4	March 31, 2023	**Preliminary Design** The permittee must complete the preliminary design of any planned facility upgrades and/or a preliminary plan and schedule for an alternative phosphorus mitigation approach to comply with the final effluent limit for TP. Deliverable: The permittee must provide written notification to the EPA and the preliminary design and/or mitigation plan has been submitted and approved by IDEQ.
5	March 31, 2023	**Final Design** The permittee must complete final design of any necessary facility upgrades to meet the final phosphorus limits. Deliverable: The permittee must submit the final design to IDEQ for approval and provide written notification to the EPA that the final design is complete.
6	March 31, 2025	**Complete Construction** The permittee must complete construction of the selected alternative to meet the final TP limits. Deliverable: The permittee must submit construction completion reports to the EPA and the IDEQ.
7	February 28, 2027	**Process Optimization and Achieve Final Effluent Limitation** Commission new facility equipment/process over one season to optimize the process and ensure consistent achievement of the final effluent limits. Deliverable: The permittee must provide written verification to the EPA and the IDEQ with written notice of compliance with the final TP effluent limits.

3. Annual Report of Progress

   a) The permittee must submit an Annual Report of Progress that outlines the progress made toward reaching the compliance date for the TRC and TP effluent limitations. The annual progress report based on data gathered through December 31st is due February 15th of the subsequent year. The first report through December 31, 2017 is due on February 15, 2018 and annually thereafter, until compliance with the TRC effluent limits is achieved. See also Part III.K., "Compliance Schedules." At a minimum, the annual report must include:

      (i) An assessment of the previous year of TRC and TP data and comparison to the effluent limitations.

      (ii) A report on progress made towards meeting the effluent limitations, including the applicable deliverable required under paragraph 2 (Table 4) and paragraph 3 (Table 5).

      (iii) Further actions and milestones targeted for the upcoming year.

D. Facility Planning Requirement

1. Design Criteria. The maximum design flows and waste loads for the permitted facility are:

Table 6. Facility Planning Values

Facility Design Criteria	Value	Units
Maximum Monthly Flow	0.68	mgd
Maximum monthly flow means the largest volume of flow anticipated to occur during a continuous 30-day period, expressed as a daily average.		

2. Plan for maintaining adequate capacity

   a) Condition to trigger plan development

      (i) Each month, the Permittee must record the average daily flow entering the facility for that month.

      (ii) When the actual flow for any two months during a 12-month period exceed the facility planning values listed in Table 6, , the permittee must develop a new or updated plan and schedule for continuing to maintain capacity and maintain compliance with effluent limits.

   b) Submittal. The plan must be submitted to IDEQ within 18 months of exceeding the trigger.

   c) Plan and schedule content. The plan and schedule must identify the actions necessary to maintain adequate capacity and to meet the limits and requirements of the permit. The Permittee must consider the following topics and actions in its plan:

(i) Analysis of the present design and proposed process modifications

(ii) Reduction or elimination of excessive infiltration and inflow of uncontaminated ground and surface water into the sewer system

(iii) Limits on future sewer extensions or connections or additional waste loads

(iv) Modification or expansion of facilities

(v) Reduction of industrial or commercial flows or waste loads

E. Industrial Waste Management

1. The Permittee must not authorize the introduction of pollutants that would inhibit, interfere, or otherwise be incompatible with operation of the treatment works including interference with the use or disposal of municipal sludge.
2. The Permittee must not authorize, under any circumstances, the introduction of the following pollutants to the POTW from any source of nondomestic discharge:
   a) Any pollutant which may cause Pass Through or Interference;
   b) Pollutants which create a fire or explosion hazard in the POTW, including, but not limited to, waste streams with a closed cup flashpoint of less than 60° C (140° F) using the test methods specified in 40 CFR 261.21;
   c) Pollutants which will cause corrosive structural damage to the POTW, but in no case indirect discharges with a pH of lower than 5.0 s.u., unless the treatment facilities are specifically designed to accommodate such indirect discharges;
   d) Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW, or other interference with the operation of the POTW;
   e) Any pollutant, including oxygen demanding pollutants (e.g., BOD_5), released in an indirect discharge at a flow rate and/or pollutant concentration which will cause Interference with any treatment process at the POTW;
   f) Heat in amounts which will inhibit biological activity in the POTW resulting in Interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40° C (104° F) unless the Approval Authority, upon request of the POTW, approves alternate temperature limits;
   g) Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause Interference or Pass Through at the POTW;
   h) Pollutants which result in the presence of toxic gases, vapors, or fumes within the POTW in a quantity that may cause acute worker health and safety problems;
   i) Any trucked or hauled pollutants, except at discharge points designated by the POTW
   j) Any specific pollutant which exceeds a local limitation established by the Permittee in accordance with the requirements of 40 CFR 403.5(c) and (d).

3. The Permittee must develop and maintain a master list of the industrial users introducing pollutants to the POTW. Industrial user means any source of indirect discharge from a non-domestic source. This list must identify:
   a) Names and addresses of all industrial users;
   b) Which industrial users are significant industrial users (SIUs) (see Paragraph 5 of this Part);
   c) Which SIUs are subject to categorical Pretreatment Standards (see 40 CFR 405-471);
   d) Which standards are applicable to each industrial user (if any);
   e) Which industrial users are subject to local standards that are more stringent than the categorical Pretreatment Standards; and
   f) Which industrial users are subject only to local requirements.
4. The Permittee must submit this list, along with a summary description of the sources and information gathering methods used to develop this list, to EPA within two years following the effective date of the NPDES permit.
5. For the purposes of this list development, the term SIU means:
   a) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR chapter I, subchapter N; and
   b) Any other industrial user that:
      (i) discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling and boiler blowdown wastewater);
      (ii) contributes a process waste stream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or
      (iii) is designated as such by EPA or the Permittee on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violation any Pretreatment Standard or requirement in accordance with 40 CFR 403.8(f)(6).

F. Emergency Response and Public Notification Plan

1. The permittee must develop and implement an overflow emergency response and public notification plan that identifies measures to protect public health from overflows that may endanger health and unanticipated bypasses or upsets that exceed any effluent limitation in the permit. At a minimum the plan must include mechanisms to:
   a) Ensure that the permittee is aware (to the greatest extent possible) of all overflows from portions of the collection system over which the permittee has ownership or operational control and unanticipated bypass or upset that exceed any effluent limitation in the permit;

b) Ensure appropriate responses including assurance that reports of an overflow or of an unanticipated bypass or upset that exceed any effluent limitation in the permit are immediately dispatched to appropriate personnel for investigation and response;

c) Ensure immediate notification to the public, health agencies, and other affected public entities (including public water systems). The overflow response plan must identify the public health and other officials who will receive immediate notification;

d) Ensure that appropriate personnel are aware of and follow the plan and are appropriately trained; and

e) Provide emergency operations.

2. The permittee must submit written notice to EPA and IDEQ that the plan has been developed and implemented within ***180*** days of the effective date of this permit. Any existing emergency response and public notification plan may be modified for compliance with this section.

III. Monitoring, Recording and Reporting Requirements

A. Representative Sampling (Routine and Non-Routine Discharges)

Samples and measurements must be representative of the volume and nature of the monitored discharge.

In order to ensure that the effluent limits set forth in this permit are not violated at times other than when routine samples are taken, the permittee must collect additional samples at the appropriate outfall whenever any discharge occurs that may reasonably be expected to cause or contribute to a violation that is unlikely to be detected by a routine sample. The permittee must analyze the additional samples for those parameters limited in Part I.B. of this permit that are likely to be affected by the discharge.

The permittee must collect such additional samples as soon as a spill, discharge, or bypassed effluent reaches the outfall. The samples must be analyzed in accordance with paragraph III.C ("Monitoring Procedures"). The permittee must report all additional monitoring in accordance with paragraph III.D ("Additional Monitoring by Permittee").

B. Reporting of Monitoring Results

The permittee must submit monitoring data and other reports electronically using NetDMR.

Monitoring data must be submitted electronically to EPA no later than the 20th of the month following the completed reporting period. All reports required under this permit must be submitted to EPA as a legible electronic attachment to the DMR. The permittee must sign and certify all DMRs, and all other reports, in accordance with the requirements of Part V.E of this permit, Signatory Requirement. Once a permittee

begins submitting reports using NetDMR, it will no longer be required to submit paper copies of DMRs or other reports to EPA and IDEQ.

b) The permittee may use NetDMR after requesting and receiving permission from US EPA Region 10. NetDMR is accessed from: https://netdmr.epa.gov/netdmr/public/home.htm

C. Monitoring Procedures

Monitoring must be conducted according to test procedures approved under 40 CFR Part 136, unless another method is required under 40 CFR subchapters N or O, or other test procedures have been specified in this permit or approved by EPA as an alternate test procedure under 40 CFR 136.5.

D. Additional Monitoring by Permittee

If the permittee monitors any pollutant more frequently than required by this permit, using test procedures approved under 40 CFR Part 136 or as specified in this permit, the permittee must include the results of this monitoring in the calculation and reporting of the data submitted in the DMR.

Upon request by EPA, the permittee must submit results of any other sampling, regardless of the test method used.

E. Records Contents

Records of monitoring information must include:

1. the date, exact place, and time of sampling or measurements;
2. the name(s) of the individual(s) who performed the sampling or measurements;
3. the date(s) analyses were performed;
4. the names of the individual(s) who performed the analyses;
5. the analytical techniques or methods used; and
6. the results of such analyses.

F. Retention of Records

The permittee must retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, copies of DMRs, a copy of the NPDES permit, and records of all data used to complete the application for this permit, for a period of at least five years from the date of the sample, measurement, report or application. This period may be extended by request of EPA or the State of Idaho at any time.

G. Twenty-four Hour Notice of Noncompliance Reporting

1. The permittee must report the following occurrences of noncompliance by telephone within 24 hours from the time the permittee becomes aware of the circumstances:

a) any noncompliance that may endanger health or the environment;

b) any unanticipated bypass that exceeds any effluent limitation in the permit (See Part IV.F., "Bypass of Treatment Facilities");

c) any upset that exceeds any effluent limitation in the permit (See Part IV.G., "Upset Conditions"); or

d) any violation of a maximum daily discharge limitation for applicable pollutants;

e) any overflow prior to the treatment works over which the permittee has ownership or has operational control. An overflow is any spill, release or diversion of municipal sewage including:

(i) an overflow that results in a discharge to waters of the United States; and

(ii) an overflow of wastewater, including a wastewater backup into a building (other than a backup caused solely by a blockage or other malfunction in a privately owned sewer or building lateral) that does not reach waters of the United States.

2. The permittee must also provide a written submission within five days of the time that the permittee becomes aware of any event required to be reported under subpart 1 above. The written submission must contain:

a) a description of the noncompliance and its cause;

b) the period of noncompliance, including exact dates and times;

c) the estimated time noncompliance is expected to continue if it has not been corrected; and

d) steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

e) if the noncompliance involves an overflow, the written submission must contain:

(i) The location of the overflow;

(ii) The receiving water (if there is one);

(iii) An estimate of the volume of the overflow;

(iv) A description of the sewer system component from which the release occurred (e.g., manhole, constructed overflow pipe, crack in pipe);

(v) The estimated date and time when the overflow began and stopped or will be stopped;

(vi) The cause or suspected cause of the overflow;

(vii) Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the overflow and a schedule of major milestones for those steps;

(viii) An estimate of the number of persons who came into contact with wastewater from the overflow; and

(ix) Steps taken or planned to mitigate the impact(s) of the overflow and a schedule of major milestones for those steps.

3. The Director of the Office of Compliance and Enforcement may waive the written report on a case-by-case basis if the oral report has been received within 24 hours by the NPDES Compliance Hotline in Seattle, Washington, by telephone, (206) 553-1846.

4. Reports must be submitted to the addresses in Part III.B ("Reporting of Monitoring Results").

H. Other Noncompliance Reporting

The permittee must report all instances of noncompliance, not required to be reported within 24 hours, at the time that monitoring reports for Part III.B ("Reporting of Monitoring Results") are submitted. The reports must contain the information listed in Part III.G.2 of this permit ("Twenty-four Hour Notice of Noncompliance Reporting").

I. Public Notification

The permittee must immediately notify the public, health agencies and other affected entities (e.g., public water systems) of any overflow which the permittee owns or has operational control; or any unanticipated bypass or upset that exceeds any effluent limitation in the permit in accordance with the notification procedures developed in accordance with Part III.G.

J. Notice of New Introduction of Toxic Pollutants

The permittee must notify the Director of the Office of Water and Watersheds and IDEQ in writing of:

1. Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to Sections 301 or 306 of the Act if it were directly discharging those pollutants; and

2. Any substantial change in the volume or character of pollutants being introduced into the POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.

3. For the purposes of this section, adequate notice must include information on:

   a) The quality and quantity of effluent to be introduced into the POTW, and

   b) Any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

4. The permittee must notify the Director of the Office of Water and Watersheds at the following address:

US EPA Region 10
Attn: NPDES Permits Unit Manager

1200 6th Avenue
Suite 900 OWW-191
Seattle, WA 98101-3140

K. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit must be submitted no later than 14 days following each schedule date.

IV. Compliance Responsibilities

A. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

B. Penalties for Violations of Permit Conditions

1. Civil and Administrative Penalties. Pursuant to 40 CFR Part 19 and the Act, any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed the maximum amounts authorized by Section 309(d) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $37,500 per day for each violation).

2. Administrative Penalties. Any person may be assessed an administrative penalty by the Administrator for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Pursuant to 40 CFR 19 and the Act, administrative penalties for Class I violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(A) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $37,500). Pursuant to 40 CFR 19 and the Act, penalties for Class II violations are not to exceed the maximum amounts authorized by Section 309(g)(2)(B) of the Act and the Federal Civil Penalties Inflation Adjustment Act (28 U.S.C. § 2461 note) as amended by the Debt Collection Improvement Act (31 U.S.C. § 3701 note) (currently $16,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $187,500).

3. Criminal Penalties:

   a) Negligent Violations. The Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than 1 year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than 2 years, or both.

   b) Knowing Violations. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than 3 years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than 6 years, or both.

   c) Knowing Endangerment. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

   d) False Statements. The Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than 4 years, or both. The Act further provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than 6 months per violation, or by both.

C. Need To Halt or Reduce Activity not a Defense

It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit.

D. Duty to Mitigate

The permittee must take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper Operation and Maintenance

The permittee must at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

F. Bypass of Treatment Facilities

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur that does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2 and 3 of this Part.
2. Notice.
    a) Anticipated bypass. If the permittee knows in advance of the need for a bypass, it must submit prior written notice, if possible at least 10 days before the date of the bypass.
    b) Unanticipated bypass. The permittee must submit notice of an unanticipated bypass as required under Part III.G ("Twenty-four Hour Notice of Noncompliance Reporting").
3. Prohibition of bypass.
    a) Bypass is prohibited, and the Director of the Office of Compliance and Enforcement may take enforcement action against the permittee for a bypass, unless:
        (i) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
        (ii) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to

prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance; and

(iii) The permittee submitted notices as required under paragraph 2 of this Part.

b) The Director of the Office of Compliance and Enforcement may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed above in paragraph 3.a. of this Part.

G. Upset Conditions

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee meets the requirements of paragraph 2 of this Part. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. To establish the affirmative defense of upset, the permittee must demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
   a) An upset occurred and that the permittee can identify the cause(s) of the upset;
   b) The permitted facility was at the time being properly operated;
   c) The permittee submitted notice of the upset as required under Part III.G, "Twenty-four Hour Notice of Noncompliance Reporting;" and
   d) The permittee complied with any remedial measures required under Part IV.D, "Duty to Mitigate."
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

H. Toxic Pollutants

The permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

I. Planned Changes

The permittee must give written notice to the Director of the Office of Water and Watersheds as specified in part III.J.4. and IDEQ as soon as possible of any planned physical alterations or additions to the permitted facility whenever:

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source as determined in 40 CFR 122.29(b); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this permit.

3. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application site.

J. Anticipated Noncompliance

The permittee must give written advance notice to the Director of the Office of Compliance and Enforcement and IDEQ of any planned changes in the permitted facility or activity that may result in noncompliance with this permit.

K. Reopener

This permit may be reopened to include any applicable standard for sewage sludge use or disposal promulgated under section 405(d) of the Act. The Director may modify or revoke and reissue the permit if the standard for sewage sludge use or disposal is more stringent than any requirements for sludge use or disposal in the permit, or controls a pollutant or practice not limited in the permit.

V. General Provisions

A. Permit Actions

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR 122.62, 122.64, or 124.5. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

B. Duty to Reapply

If the permittee intends to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. In accordance with 40 CFR 122.21(d), and unless permission for the application to be submitted at a later date has been granted by the Regional Administrator, the permittee must submit a new application at least 180 days before the expiration date of this permit.

C. Duty to Provide Information

The permittee must furnish to EPA and IDEQ within the time specified in the request, any information that EPA or IDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to EPA or IDEQ, upon request, copies of records required to be kept by this permit.

D. Other Information

When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or that it submitted incorrect information in a permit application or any report to EPA or IDEQ, it must promptly submit the omitted facts or corrected information in writing.

E. Signatory Requirements

All applications, reports or information submitted to EPA and IDEQ must be signed and certified as follows.

1. All permit applications must be signed as follows:
   a) For a corporation: by a responsible corporate officer.
   b) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively.
   c) For a municipality, state, federal, Indian tribe, or other public agency: by either a principal executive officer or ranking elected official.
2. All reports required by the permit and other information requested by EPA or IDEQ must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a) The authorization is made in writing by a person described above;
   b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company; and
   c) The written authorization is submitted to the Director of the Office of Compliance and Enforcement and IDEQ
3. Changes to authorization. If an authorization under Part V.E.2 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part V.E.2. must be submitted to the Director of the Office of Compliance and Enforcement and IDEQ prior to or together with any reports, information, or applications to be signed by an authorized representative.
4. Certification. Any person signing a document under this Part must make the following certification:

> "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my

knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

F. Availability of Reports

In accordance with 40 CFR 2, information submitted to EPA pursuant to this permit may be claimed as confidential by the permittee. In accordance with the Act, permit applications, permits and effluent data are not considered confidential. Any confidentiality claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, EPA may make the information available to the public without further notice to the permittee. If a claim is asserted, the information will be treated in accordance with the procedures in 40 CFR 2, Subpart B (Public Information) and 41 Fed. Reg. 36902 through 36924 (September 1, 1976), as amended.

G. Inspection and Entry

The permittee must allow the Director of the Office of Compliance and Enforcement, EPA Region 10, IDEQ; or an authorized representative (including an authorized contractor acting as a representative of the Administrator), upon the presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purpose of assuring permit compliance or as otherwise authorized by the Act, any substances or parameters at any location.

H. Property Rights

The issuance of this permit does not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to persons or property or invasion of other private rights, nor any infringement of federal, tribal, state or local laws or regulations.

I. Transfers

This permit is not transferable to any person except after written notice to the Director of the Office of Water and Watersheds as specified in part III.J.4. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the

Act. (See 40 CFR 122.61; in some cases, modification or revocation and reissuance is mandatory).

J. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation under authority preserved by Section 510 of the Act.

VI. Definitions

1. "Act" means the Clean Water Act.
2. "Acute Toxic Unit" ("TUa") is a measure of acute toxicity. TUa is the reciprocal of the effluent concentration that causes 50 percent of the organisms to die by the end on the acute exposure period (i.e., 100/"LC50").
3. "ADEC" means Alaska Department of Environmental Conservation.
4. "Administrator" means the Administrator of the EPA, or an authorized representative.
5. "Average monthly discharge limitation" means the highest allowable average of "daily discharges" over a calendar month, calculated as the sum of all "daily discharges" measured during a calendar month divided by the number of "daily discharges" measured during that month.
6. "Average weekly discharge limitation" means the highest allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week.
7. "Best Management Practices" (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage areas.
8. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
9. "Chronic toxic unit" ("TUc") is a measure of chronic toxicity. TUc is the reciprocal of the effluent concentration that causes no observable effect on the test organisms by the end of the chronic exposure period (i.e., 100/"NOEC").
10. "Composite" - see "24-hour composite".
11. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the "daily discharge" is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of

measurement, the "daily discharge" is calculated as the average measurement of the pollutant over the day.

12. "Director of the Office of Compliance and Enforcement" means the Director of the Office of Compliance and Enforcement, EPA Region 10, or an authorized representative.
13. "Director of the Office of Water and Watersheds" means the Director of the Office of Water and Watersheds, EPA Region 10, or an authorized representative.
14. "DMR" means discharge monitoring report.
15. "EPA" means the United States Environmental Protection Agency.
16. "Geometric Mean" means the n^{th} root of a product of n factors, or the antilogarithm of the arithmetic mean of the logarithms of the individual sample values.
17. "Grab" sample is an individual sample collected over a period of time not exceeding 15 minutes.
18. "IDEQ" means the Idaho Department of Environmental Quality.
19. "Indirect Discharge" means the introduction of pollutants into a POTW from any non-domestic source regulated under section 307(b), (c) or (d) of the Act.
20. "Industrial User" means a source of "Indirect Discharge."
21. "Inhibition concentration", IC, is a point estimate of the toxicant concentration that causes a given percent reduction (p) in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (e.g., Interpolation Method).
22. "Interference" means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both: 1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and 2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Act, the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to subtitle D of the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.
23. "LC50" means the concentration of toxicant (e.g., effluent) which is lethal to 50 percent of the test organisms exposed in the time period prescribed by the test.
24. "Maximum daily discharge limitation" means the highest allowable "daily discharge."

25. "Method Detection Limit (MDL)" means the minimum concentration of a substance (analyte) that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix containing the analyte.

26. "Minimum Level (ML)" means either the sample concentration equivalent to the lowest calibration point in a method or a multiple of the method detection limit (MDL). Minimum levels may be obtained in several ways: They may be published in a method; they may be sample concentrations equivalent to the lowest acceptable calibration point used by a laboratory; or they may be calculated by multiplying the MDL in a method, or the MDL determined by a lab, by a factor.

27. "NOEC" means no observed effect concentration. The NOEC is the highest concentration of toxicant (e.g., effluent) to which organisms are exposed in a chronic toxicity test [full life-cycle or partial life-cycle (short term) test], that causes no observable adverse effects on the test organisms (i.e., the highest concentration of effluent in which the values for the observed responses are not statistically significantly different from the controls).

28. "NPDES" means National Pollutant Discharge Elimination System, the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits . . . under sections 307, 402, 318, and 405 of the Act.

29. "Pass Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

30. "QA/QC" means quality assurance/quality control.

31. "Regional Administrator" means the Regional Administrator of Region 10 of the EPA, or the authorized representative of the Regional Administrator.

32. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

33. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

34. "24-hour composite" sample means a combination of at least 8 discrete sample aliquots of at least 100 milliliters, collected over periodic intervals from the same location, during the operating hours of a facility over a 24 hour period. The composite must be flow proportional. The sample aliquots must be collected and

stored in accordance with procedures prescribed in the most recent edition of Standard Methods for the Examination of Water and Wastewater.

Appendix A

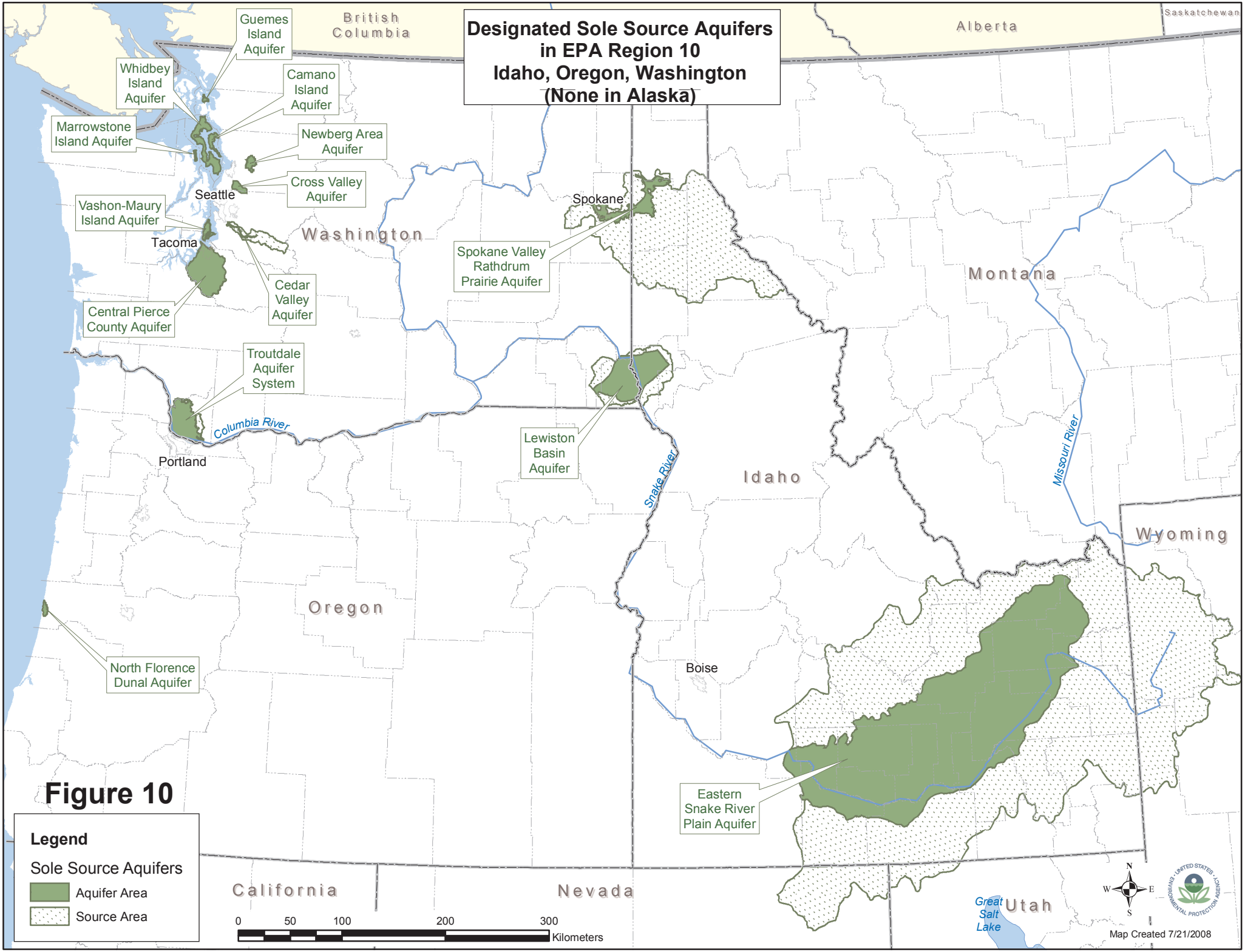
Minimum Levels

The Table below lists the maximum Minimum Level (ML) for pollutants not subject to concentration effluent limits in the permit. The permittee may request different MLs. The request must be in writing and must be approved by EPA. If the Permittee is unable to obtain the required ML in its effluent due to matrix effects, the Permittee must submit a matrix-specific detection limit (MDL) and a ML to EPA with appropriate laboratory documentation.

Pollutant & CAS No. (if available)	Minimum Level (ML) µg/L unless specified
Biochemical oxygen demand	2 mg/L
Chlorine, total residual	50.0
Dissolved oxygen	0.2 mg/L
Mercury, total (7439-97-6)	0.0005
Nitrate + nitrite nitrogen (as N)	100
Nitrogen, total Kjeldahl (as N)	300
Oil and grease (HEM) (hexane extractable material)	5,000
pH	N/A
Phosphorus, total (as P)	10
Soluble reactive phosphorus (as P)	10
Temperature	0.2º C
Total ammonia (as N)	50
Total dissolved solids	20 mg/L
Total suspended solids	5 mg/L

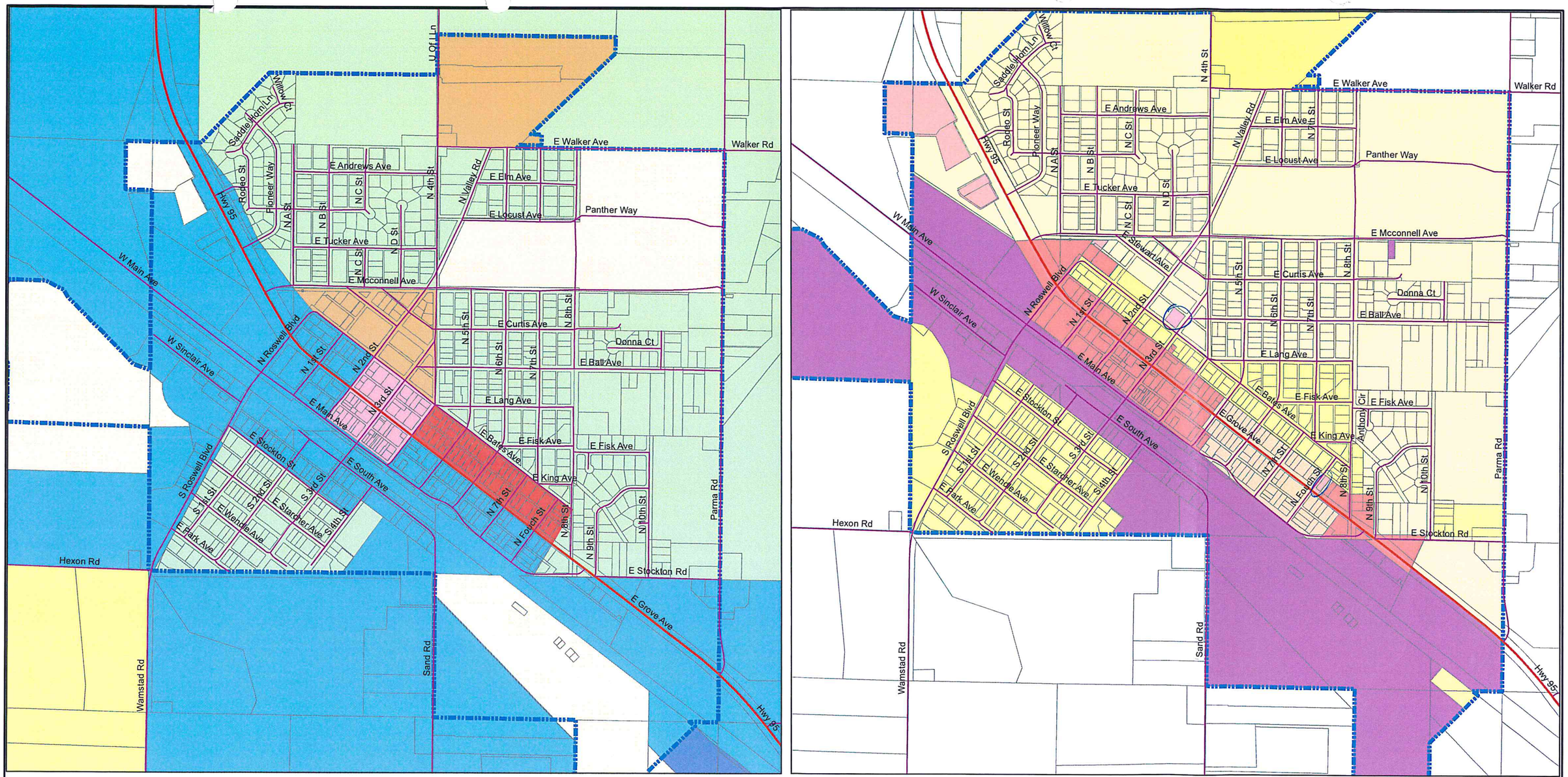
APPENDIX B

SOLE SOURCE AQUIFER MAP


Designated Sole Source Aquifers
in EPA Region 10
Idaho, Oregon, Washington
(None in Alaska)
Guemes Island Aquifer
Whidbey Island Aquifer
Camano Island Aquifer
Marrowstone Island Aquifer
Newberg Area Aquifer
Cross Valley Aquifer
Seattle
Vashon-Maury Island Aquifer
Tacoma
Cedar Valley Aquifer
Central Pierce County Aquifer
Troutdale Aquifer System
Portland
Columbia River
Spokane
Spokane Valley Rathdrum Prairie Aquifer
Lewiston Basin Aquifer
Snake River
Missouri River
North Florence Dunal Aquifer
Boise
Eastern Snake River Plain Aquifer
British Columbia
Alberta
Saskatchewan
Washington
Montana
Idaho
Wyoming
Oregon
California
Nevada
Utah
Great Salt Lake
Figure 10
Legend
Sole Source Aquifers
Aquifer Area
Source Area
0 50 100 200 300
Kilometers
N
W
E
S
Map Created 7/21/2008

APPENDIX C

CITY ZONE MAP



Legend

Comp Plan

- CITY LIMITS
- TAXPARCELS
- Highway
- Interstate
- Roads
- High-Density Residential
- Medium-Density Residential
- Low-Density Residential
- Residential Recreational
- Rural Residential
- Central Business District
- Commercial
- Commercial/Industrial
- Heavy Industrial
- Mixed Use
- Open Space
- Public

CANYON COUNTY, IDAHO — DEVELOPMENT SERVICES — GEOGRAPHICAL INFORMATION SYSTEMS

Zoning

- SINGLE-FAMILY RESIDENTIAL ZONE, R-1
- COMBINED RESIDENTIAL ZONE, R-2
- MULTIPLE-FAMILY RESIDENTIAL ZONE, R-3
- NEIGHBORHOOD COMMERCIAL ZONE, C-1
- COMMUNITY COMMERCIAL ZONE, C-2
- SERVICE COMMERCIAL ZONE, C-3
- LIGHT INDUSTRIAL ZONE, M-1

these 2 are combined in the zoning code text

Heavy Industrial M-2 (nothing zoned this in city.)

Source: Compass
Date: 10/27/2015

0 0.15 0.3 0.45 Miles

APPENDIX D

INFLUENT FLOW DATA

Month Jan.

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res	Temp
1		1290.9	5239489	410,602	8727540	422,873	278912085	19,523	3086.0	6455.7	7.7	.03	2.7
2		1302.4	5574018	334,529	9073677	346,137	278919782	7,697	3086.2	6456.0	7.8	.07	3.0
3		1315.0	5932191	358,173	9468335	394,658	278926124	6,342	3086.4	6456.2	7.8	.09	3.0
4		1324.2	6193600	261,409	9807975	339,640	278940691	14,567	3086.9	6456.8	7.8	.07	3.
5		1334.3	6480631	287,031	178341	370366	278953947	13,256	3087.3	6457.3	8.0	.08	3
6		1344.2	6761235	280,604	535900	387559	278959483	5,538	3087.5	6457.6	8.0	.10	3
7		1355.1	7064132	302,897	897262	361362	278969888	10405	3087.8	6458.0	8.0	.05	3.0
8		1356.1	~~7593985~~		1198832	301570	278974098	4210	3087.9	6458.2	8.0	.06	3.8
9		1374.1	7593985	~~290 059~~	1495195	296,363	278976797	2,699	3088.0	6458.2	8.0	.07	4
10		1384.4	7884044	~~282,855~~	1801770	306,575	278989000	12,203	3088.4	6458.7	8.0	.09	4
11		1394.4	8166900	282,856	2128500	326,730	279017338	28,338	3089.4	6459.8	8.0	.11	4
12		1404.7	8452455	285,555	2464800	336,300	279047288	29,950	3090.4	6460.9	7.7	.12	4.8
13		1427.6	9898980		2767000	302,200	279072357	25,069	3091.4	6461.9	7.8	.14	5.
14		1437.7	9371700		3162238	395,238	279101717	29,360	3092.2	6463.1	8.0	.11	5
15		1437.7	9371700		3487600	325,362	279121800	20083	3092.9	6463.9			
16		1448.3	9661578	289,878	3811581	323,981	279139448	17,648	3093.4	6464.7	8.0	.08	5
17		1456.3	9861406	199,828	4066161	254,580	279150061	10,613	3093.8	6465.1	8.	.14	5.5
18		1466.8	126191	264785	4394293	328,132	279160084	10,023	3094.2	6465.4	7.8	.15	5
19		1477.8	404070	277,879	4755458	361,165	279164035	3,951	3094.2	6465.6	7.8	.15	4.7
20		1489.6	703520	299,450	5098642	343,184	279166779	2,744	3094.4	6465.7	7.8	.13	4.1
21		1502.0	1020271		~~5491405~~	392,763	279168691	1,912	3094.4	6465.8	7.	.13	3.8
22		1511.4	1258805	238,534	~~5783155~~	291,750	279169469	778	3094.4	6465.8			
23		1521.6	1515372	256,567	6100800	317,645	279169857	388	3094.5	6465.8	7.8	.13	3.8
24		1532.3	1787800	272,428	6422000	321,200	279169857	0	3094.5	6465.8	7.8	.14	3.7
25		1543.4	2068700	280,900	6788770	366,770	279169857	0	3094.5	6465.8	7.8	.15	3.8
26		1554.4	2343628	274,928	7111306	322,536	279169857	0	3094.5	6465.8	7.9	.16	4
27		1564.7	2602039	258,411	7438395	327,089	279169857	0	3094.5	6465.9	8.0	.15	4
28		1574.2	2840056	238,017	7798284	359,889	279169857	0	3094.5	6465.9	7.9	.15	4.8
29		1584.3	3095320	255,264	8150824	352,440	279169857	0	3094.5	6465.9	7.9	.14	4.2
30		1594.0	3344170	248,850	8434568	283,744	279169857	0	3094.5	6465.9	8.0	.14	4.7
31		1604.0	3596794	270,124	8771566	336,998	279169857	0	3094.5	6465.9	8.0	.16	2.8

total 8,356,805

Month Feb

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	~~#2~~	Infl/ Mtr	~~Infl Hour Clock~~	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	~~Chl #/Day Auto~~	~~Chl #/Day Manual~~	PH	Chl Res	Temp
									R1 1	R1 2			
1	X	16613.7	3838884	242,590	9081022	309,956	279169857	0	3094.4	6465.8	8.0	.14	2.5
2		16623.6	4085526	246,642	9417760	336,738	279169857	0	3094.4	6465.8	8.0	.16	2.6
3		16634.0	4341863	256,337	9752811	335,051	279169857	0	3094.5	6465.8	8.0	.17	2.7
4		16456	4623957	284,094	148795	330,700	279169857	0	3094.5	6465.8			
5		16558	4877493	251,836	4776687	328,892	279169857	0	3094.5	6465.8			
6		16630	5053499	175,706	7268778	249,191	279169857	0	3094.5	64658	8.0	.17	3.
7		16726	5293900	240,401	1040331	313,453	279169857	0	3094.5	64658	8.0	.17	4
8		16817	5525353	231,453	1247000	206,669	279169857	0	30945	64658	7.8	.17	5
9		16909	5756766	231413	1439700	192,700	279169850	0	30945	6465.8	7.8	.16	5
10		1700.2	5991737	234971	1648145	208445	279169988		3094.5	6465.9	7.9	.15	5
11	9.00	1709.9	6234200	242463	1790778	142633	279169988	0	3094.5	6465.9	7.8	.11	4.9
12	10.15	1719.5	6476500	242300	1957400	166622	279169988	0	3094.5	6465.9	7.8	.17	5.3
13	8.30	1728.8	6710130	233630	2081600	124200	279169988	0	3094.5	6465.9	7.9	.14	5.8
14		1738.6	6956058	245,928	2240850	158,750	279169988	0	3094.5	6465.9	7.9	.16	5.
15		1748.6	7201400	251,342	2388190	147,840	279169988	0	30945	6465.9	7.9	.15	5
16		1757.2	7423100	215,700	2584409	196,219	279169988	0	30945	6465.9	8.1	.101	5
17		17657	7635132	212,032	2770738	186,329	279169988	0	30945	6465.9	8	.17	5
18 TC		1776	7894984	259,852	3006884	236,146	279169988	0	3094.5	6465.9	8.2	.15	4.7
19 TC		17856	8136514	241,530	3198842	191,958	279169988	0	3094.5	6465.9	8.05	.15	4.7
20 TC		17940.	8350474	213,960	3390108	191,266	27916988	0	3094.5	646.9	8.08	15	5.2
21		18038	8596746	246,272	3577227	187,119	27916988	0	3094.5	6469	8.2	0	6.5
22		18126	8811250	214,504	3780448	203,221	27916988	0	30945	6469	8	.16	6.6
23		18222	9049400	238,150	3974000	193,552	279169997	0	30945	6465.9	8.17	10	6.
24		18304	9255100	205,700	4185100	209,100	279174900	4903	30945	64659	8.04	.12	4
25		18397	9506585	251,485	4396030	212,930	279182499	7,599	30945	64659	8.04	15	4.7
26		18488	9734592	228,007	4610888	214,858	279184798	2,299	30949	64664	8.17	15.	4.9
27		18588	9986000	251,408	4770197	159,309	279184798	Ø	30949	646664	8.2	.15	5
28		18663	172650	162,664	4973830	203,633	279199744	14,946	30954	646669	8.0	.12	5
29													
30													
31													

Total 6,347,766

1697900

Month March

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 23

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res
1		1875.0	383443	210 793	5169844	146014	279222805	23,061	3096.2	6467.9	7.9	.15 5.0
2		1883.4	592961	209,518	5423484	253,640	279222805	Ø	3096.2	6467.9	8.0	.15 5
3		1891.7	801600	208,639	5640300	214,816	279239000	14,195	3096.6	6468.4	8.0	.17 5
4	9:30	1900.7	1027224	225624	5900700	260400	279238885	1,885	3096.7	6468.5	8.0	.15 4.9
5	10.00	1909.7	1255600	228376	6141000	240300	279239230	345	3096.7	6468.5	7.9	.15 4.9
6		1918.3	1474900	219 300	6358500	217,500	279239230	Ø	3096.7	6468.5	8.0	.15 4.6
7		1927.3	1927000	452,100	6589700	231,200	279239230	Ø	3096.7	6468.5	8.0	.15 5.2
8		1936.5	1927434	439,000	6845830	256,180	279239230	Ø	3096.7	6468.5	7.9	.15 5.2
9		1945.3	2144499	217 0600	7068985	223,105	279239230	Ø	3096.7	6468.5	7.9	.14 5.2
10		1954.5	2371615	227,116	7313525	244 540	279239230	Ø	3096.7	6468.5	8.0	.14 5.0
11		1968.0	2711579	339,964	7639300	325,775	279239230	Ø	3096.7	6468.5	7.9	.13 6.0
12		1974.5	2881100	169,521	7805600	166,300	279239230	Ø	3096.7	6468.5	7.8	.13 6.9
13		19833	3105900	224,800	8011700	206,100	279239230	Ø	3096.7	6468.5	7.9	.12 7.6
14		19941	3367560	261,600	8226700	215,000	279239230	Ø	3096.7	6468.5	7.9	.13 8.5
15		20061	3671284	303,784	8441320	214,600	279239230	Ø	3096.7	6468.5	7.7	.12 8.3
16		2018.5	3982500	311,216	8644400	203,080	279239230	Ø	3096.7	6468.5	7.7	.12 8.5
17		2029.8	4261684	279,184	8851196	206,796	279239230	Ø	3096.7	6468.5	7.8	.12 9.1
18		2042.6	4576142	314,458	9072426	221,430	279239230	Ø	3096.7	6468.5	7.8	.16 8.8
19		2051.8	4800153	234,011	9262236	189,810	279239230	Ø	3096.7	6468.5	7.8	.16 9.0
20		2061.7	5047534	247,381	9391000	128,764	279239230	Ø	3096.7	6468.5	7.4	.02 9.4
21		2074.8	5365100	317,566	9608700	217,700	279239230	Ø	3096.7	6468.5	7.6	.05 9.1
22		2086.4	5640300	275,200	9816100	207,400	279239230	Ø	3096.7	6468.5	7.6	.10 10.3
23		2097.2	5902469	262,369	10043900	357,000	279239230	Ø	3096.7	6468.5	7.5	.06 11
24		2107.9	6160200	257,531	10207480	323,048	279239230	Ø	3096.7	6468.5	7.5	.06 10.9
25		2118.1	6401597	241,397	10422.385	198,475	279239230	Ø	3096.7	6468.5	7.6	.04 9.3
26		21298	6680984	279,387	10620.75	297523	279239230	Ø	3096.7	6468.5	7.6	.08 9.2
27		2139.6	6913900	232,916	10838300.00	249,553	279239230	Ø	3096.7	6468.5	7.6	.04 9.0
28		2150.9	7178300	264,400	11412900.00	274,600	279239230	Ø	3096.7	6468.5	7.7	.04 9.0
29		2160.9	7412800	234,500	11711700	298,800	279239230	Ø	3096.7	6468.5	7.7	.05 8.0
30		2171.0	7650300	237,500	11980900	269,200	279239398	168	3096.7	6468.5	7.7	.04 8.4
31		2182.0	7914900	264,600	12279400	298,500	279239398	Ø	3096.7	6468.5	7.6	.02 8.5

total 7,531,457

Month April

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res Chlore	Chl Res Temp
1	~~2400~~ 935	2192.6	8170853	255953	2576800	297400	279239398	0	3096.7	6468.5	7.6	.02	9.1
2	10:46	2203.9	8440970	270117	2892060	315260	279239398	0			7.6	.05	8.9
3		22147	8692400	251,430	3132100	240,040	279239398	0	3096.7	6468.5	7.6	.06	9.3
4		2225.8	8960100	267,700	3448880	316,780					7.6	.03	8.4
5		22360	9214800	254,700	3715800	266,920					7.6	.04	8.0
6		2246.4	9460178	245 378	4025300	309,500					7.7	.11	9.6
7		2255.8	9683200	223,022	4293437	268,137					7.7	.11	9.8
8		2266.6	9936200	253,000	4611000	317,563					7.7	.10	8.7
9		2279.3	241487		4963300	352,300					7.6	.12	9.9
10		2286.1	406018	164 531	5176900	213,600					7.7	.11	13
11		2295.8	638400	232,382	5451000	274,100					7.7	.12	14
12		2305.2	859331	220 931	5748116	297,116					7.7	.14	13.9
13		23160	1116750	257,419	6044000	295,884					7.7	.10	12
14		2325.4	1336990	220,240	6326900	282,900					7.6	.13	12
15		2335.7	1579105	242 115	6625350	298 450					7.6	.12	13
16		23459	1817762	238,657	6940524	315,174					7.7	.11	12.8
17		2354.9	2026953	209, 191	~~7169~~ 7169300	228,776					7.7	.06	13.9
18		23666.3	2295100	263,147	7475000	305,700					7.8	.07	13.3
19		2375.6	2510600	215,500	7736642	261,642					7.5	.07	12
20		2385.7	2748900	238,300	8034000	297,358					7.4	.08	12
21		23950	2969700	220,800	8307500	273,500					7.4	.08	13
22	TC	24055	3218923	249,023	8599560	291,860					7.5	.08	13
23		24162	3470688	251,965	8865903	266,543					7.5	.08	14
24	8:00	2425.1	3680984	210276	9094400	228497	279239438	0	3096.7	6468.5	7.9	.08	14.5
25	8:00	2435.3	3921800	240 816	9320800	226,400					7.5	.08	14
26	7:40	2444.9	4144950	223150	9538500	217700					7.5	.05	15
27	7:50	2454.7	4370800	225,850	9738700	200,200					7.7	.03	16
28	7:20	246.41	4587500	216,700	9955600	216,900					7.9	.04	17.7
29 BL	11:20	2475.7	4848400	260900	10156200	200600	279239438		3096.7	6468.5	7.7	.06	17.6
30	11:30	2485.4	5074500	226100	10353000	196800					7.6	.04	18.1
31													

total 6903647

44400

Month May

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res (Clr)	Chl Res (temp)
1	24942		5284100	209600	4794[illegible]1.00	126,611	279239442	0	3096.7	64685	7.6	.03	18.8
2	2505.0		5541900	257,800	6100760.00	130.465					7.5	.04	19
3	2517.6		5836600	294,700	7159000.00	105,824					7.3	0	19
4	2525.9		6029400	192,800	9477700	231,800					7.6	0	19
5	25353		6249000	219,600	11762200	228,500					7.2	.07	19
6	25467		6514600	265,600	1497294	321,094					7.6	.16	16
7	25571		6760600	246,000	1764000	266,7060					7.6	.15	17
8	25627		6924970	164 370	1978406	214 400					7.6	.14	17
9	25743		7197476	272,506	2257845	279,445					7.9	.00	17
10	25835		7408388	210,912	2500700	242,855					7.8	.14	18
11	25925		7634900	226,512	2756300	255,600					7.8	.01	18
12	26024		7869000	234,100	3047300	291,000					8.0	.14	19
13	26152		8170244	301,244	3336288	305,988					8.1	.00	19
14	26245		8392241	221,997	3619412	283124					8.2	.00	20
15	2632.3		8575803	183562	3808300	188888					8.1	.00	20.5
16	2643.3		8835400	259,597	4092700	284,400					7.9	.04	20
17	2652.7		9057600	222,200	4312600	219,900					7.6	.06	21
18	2663.5		9314918	257,318	4575378	262,778					8.08	.00	22
19					4814000	238,622					7.79	.01	22
20	2683.7		9790998		5060479	246,479					7.5	.00	23
21	26928		9567833	223,156	5261456	200,977					7.4	.00	24
22	27034		257673	253,114	5491360	229,904					7.5	.00	23
23	27142		510787	253,714	5708391	217,031					7.4	.00	23
24	27226		705500	194,713	5924000	215,609					7.4	.07	22
25	27323		923400	217,900	6120400	196,400	279239442		30967	64685	7.4	.03	22
26	27414		1148800		6327300	206,900	279254153	14,711	30972	64691	7.5	.0	23
27	27524		1405953		6548646	221,346	279254526	373	30972	64691	7.7	.0	22
28	27621		1635636	229,683	6756840	208,194					7.5	.0	22
29	27707		1833421	197,791	6924560	167,720					7.2	.0	22
30	2780.5		2066100	232,679	7119184	194,624					7.3	.08	23
31	2793.0		2353618	287,518	7303452	184,268					7.2	.0	22

total 7,069,518

Month June

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1 Screen	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chlor	Chl Res	Temp
1	2799.5		2505573	151,955	7424359	120,907	279254526	Ø	30972	60469	7.31	.0	22.6	
2	2809.2		2731600	226,027	7436100	11,741					7.2	.05	21	
3	2822.0		2994400	262,800	7567400	131,300					7.3	.05	22	
4	28315		3253961	259,561	7774455	207,055					7.7	.01	23	
5	2838.5		3418800	164,839	7870200	95,745					7.2	.0	25	
6	2848.0		3636473	217,673	7976880	106,680					7.2	.03	25	
7	2857.8		3857600	220,727	8091600	114,800					7.2	.02	25	
8	2867.3	9.5	4077705	220,505	8190680	99,080					7.4	.03	25	
9	2877.1	9.8	4299080	221,375	8303210	112,530					7.2	.01	25.2	
10	2888.6	11.5	4572098	273018	8447790	144,580					7.2	.06	23.2	
11	2900.0	11.4	4833500	261,402	8598900	151110					7.2	.00	24.4	
12	2910.5		5074240	245,740	8740825	141,925					7.2	.04	25	
13	2920.9	7.8	5311637	237,397	8921830	181,005					7.3	.00	26	
14	2934.1	14.3	5623580	311,943	9116413	194,583					7.3	.00	26	
15	2943.7		5850000	226,420	9319160	202,747					7.4	.08	24	
16	2954.5		6081864		9528330	209,170					7.5	.10	23	
17	2966.3	11.8	6355937	274,073	9782597	254,267					7.7	.08	24	
18	2978.0	11.7	6603970	248,033	3164	220567	279254549	23,030			7.8	.00	23	
19	2988.8	10.8	6785531	181,561	165168	162,004					7.6	.04	25	
20	2997.6		7041000	255469	378388	213220					7.5	.05	21	
21	3008.7	11.0	7296360	255,360	585162	206,774					7.8	.07	21	
22	3019.6		7529900	233,600	790200	205,038					7.4	.04	22	
23	3030.3	10.7	7778600	248700	1009900	219650					7.6	.05	22.6	
24	3040.2	10.1	7987300	208700	1218700	208800					7.5	.04	23.1	
25	3049.9	9.7	8208550	221250	1415800	197100					7.4	.05	24.0	
26	3062.5		8487700	279,150	1633200	217,400	279254555	Lo			7.7	.05	24	
27	3074.5		8766700	279,000	1855100	157,310					7.3	.06	23	
28	3086.0	11.5	9020900	254200	2071100	216000					7.2	.04	24.6	
29	3100.4		9350400	329500	2333650	262550					7.2	.03	24.7	
30	3110.9	10.5	9568000	217600	2526900	193250					7.1	.00	26.5	
31														

total 7,062,427

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Month July Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res (Water Temp)
1	31241		2786418	249,082	9874805	259,18	2792554554	Ø	30972	64691	7.6	.10 26
2	313166		3035500	249082	159700	284,395					7.2	.0 26
3	3145.2	8.6	321,536	179,800	359,300	179,800					7.0	.02 27.7
4	3156.8		631556	272,256	3447056	231,756					7.0	.03 26
5	3167.1	10.3	872700	241144	3660450	213394					7.2	.02 26.3
6	3178.6	11.5	1187967	315267	3934400	273950					7.1	.05 25.8
7	3178.9		1361884	173,917	4095200	160,800					7.09	.05 26.6
8	3179.2		1655354	293,470	4561960	466,760					7.40	.05 27.2
9	3179.5	5.7	1916720	261,366	4595902	233,943					7.19	.10 27.9
10	3179.6	5.7	2121180	204,460	4792710	196,808					7.07	.06 28.5
11	3179.9	.3	2397769	276,589	5014900	222,190					7.11	.04 28.4
12	3180.1	.2	2610838	213,069	5234650	219750					7.31	.06 28.4
13	3180.3	.2	2822236	211,398	5472400	237750					7.14	.07 28.7
14	3180.6	.3	3039400	217164	5714100	241,063					7.17	.05 28.2
15	31809	.3	3266506	227,106	5976167	262,063					7.56	.06 28.2
16	31811	.2	3441626	175,120	6183166	206999					7.2	.02 29
17	31813	2	3663737	222,111	6414455	231,284					7.19	.09 29.9
18	31813		3875600	211,863	6618200	203,745					7.59	.07 28.8
19	31813		4077400	201,800	6826400	208,200					7.5	.04 28.4
20	3181.9	.6	4271870	194470	7006800	180400					7.2	.08 29.0
21	3182.2	.3	4548000	276130	7130600	123800					7.2	.07 27.8
22	3182.4	.2	4676900	128900	7268100	137500					7.3	.02 29.9
23	3182.7	.3	4887300	210400	7455800	187700					7.2	.04 29.8
24	3182.9	.2	5100450	213,150	7649090	193,290					7.2	.09 29.7
25	3182.9		5274788	174,338	7827833	178,743					7.3	.04 28.2
26	3183.4		5437660	162,872	8021300	193467					7.3	.04 28.1
27	3183.4		5600920	163260	8184200	162900					7.3	.0 28.8
28	3183.4	577917	5770800	170,997	8340800	156,600					7.4	.11 27.9
29	3183.4		5991500	219,583	8546577	205,777					7.25	Sat 29.2
30	31834		6175100	183,600	8706600	160,023					7.26	Sun 26.7
31	3183.4	Ø	6323300	148200	8834880	128,280					7.3	.11 27.4
	3183.4		6495800	172,500	8984500	149620					7.2	.07 28.1

162 gpm RT pump

142 gpm 11:00

123 Gpm 9:30

134 gpm Air comp shut off

118 gpm Pear outlet

110

86 gpm UP2

115 gpm 86% VFD

100 gpm 85% VFD

Total 3,536,882

20 4025132

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Month Aug Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res Cl2o	Chl Res Temp
1	3183.4	online	6495800	172,500	8984500	149,620	279254554	∅	30972	64691	7.2	.02	28.1
2	3190.3		6680100	184,300	9124400	139,900					7.24	.13	28.1
3	3197.9	7.6	6856300	176,200	No Flow						7.2		26
4	32061		7044811	188,511	9253100	128,700					7.2	.01	26
5	32145	5.9	7233054	188,243	9394828	141,728					7.2	.02	25
6	3225.9	6.6	7448123	215,069	9545058	150,230					7.2	.02	25
7	3230.3	4.4	7597200	149077	9647900	102,842					7.2	.03	26.1
8	3241.1	10.8	7859810	262610	9741480	93,580	Rain *				7.1	.10	25.3
9	3250.8	9.7	8084950	225140	9869500	128,020					7.25	.05	25.5
10	32616		8345900	260 950	14300	144,800					7.24	.06	26
11	32716		8481399	135,499	173000	158,700					7.25	.06	26
12	32775	6.8	8701681	220,282	344357	329,037					7.24	.08	26
13	32854	6.5	8868069	166,388	498560	154,163					7.26	.07	26
14	32934		9070600	182,531	633200	134,700					7.25	.08	27
15	33024		9275800	205,200	789632	156,432					7.24	.15	27
16	33111		9471700	195,900	941700	152,068					7.24	.10	28
17	33207		9692300	220,600	1132900	191,200					7.23	.13	28
18	3328.1	7.4	9860560	168260	1245000	132,100	279254871				7.2	.08	28.4
19	3336.4	8.3	48060	187500	1396400	151400	Power outage 3:30 ish				7.2	.08	28.1
20	3345.4	9	253800	245740	1578700	182300	Power outage 1200AM				7.2	.01	27.0
21	3354.9	9.5	473100	219300	1694500	115800	(Rain Hard)				7.2	.14	25.7
22	3368.3	13.4	819400	346300	1847000	152,500	(Rain Hard)				7.2	.16	25.1
23	33803	12.0	1105100	285,700	2001300	154,300					7.3	.11	25
24	33906	10.3	1356200	251,100	2151100	149,800					7.3	.14	25
25	34014		1610200	254,000	2311333	160,233					7.2	.03	26
26	34140		1915172	304,972	2507548	196,215					7.2	.05	25
27	34240		2148869	233,697	2665165	157,617					7.2	.03	25
28	34303		2304464	155,595	2774500	109,335					7.2	.10	26
29	34402		2536300	231,836	2927900	153,400					7.2	.08	26
30	34489		2747500	211,200	3073900	146,000					7.2	.03	26
31	34589		2974000	226,500	3226400	152,500					7.2	.02	25

total - 6,478,200

2,974,000

Month September

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res	Temp
1	34672	16.0	3186234	392,234	3366870	140,470	279254554	6	3972	64691	7.3	.07	24.5
2	3477.4	15.3	3424171	237,937	3533165	166,295					7.3	.08	23.4
3	3487.8	7.3	3681224	257,053	3686335	153,170					7.2	.07	23.7
4	3497.9	18.7	3918657	237,433	3833250	146,915					7.2	.03	23.3
5	3506.3	8.4	4126187	207,530	3957876	124,620					7.2	.06	23.6
6	3516.9	15.6	4375565	249,378	4122769	164,899					7.2	.0	23.4
7	3526.0	16.5	4595582	220,017	4287180	164,411					7.2	.04	23.2
8	3535.1		4805100	209,518	4413100	125,920					7.2	.02	23.3
9	35433	8.2	5003828	198,728	4542303	129,203					7.2	.05	23.3
10	35552	12.1	5276858	273,030	4736113	193,810					7.20	.0	23.3
11	3563.0	7.8	5465222	188,364	4858300	122,187					7.3	.0	23.3
12	3572.9		5697300	232,078	5065500	207,200					7.3	.05	23.7
13	3581.2		5894300	197,000	5256000	190,500					7.3	.04	23.3
14	3590.8		6115000	220,700	5459000	203,000					7.3	.02	23.1
15	36000		6325000	210,000	5662800	203,800					7.3	.08	22.6
16	3611.9		6394500	215,000	5929430	266,630					7.3	.13	21
17	3620.6		6806479	211979	6127090	197,660					7.2	.09	21.8
18	3627.2		6942300	135,821	6261400	134,310					7.2	.08	22.2
19	3636.1		7173200	230,900	6475800	214,400					7.2	.12	22
20	3644.4		7366200	193,000	6664200	188,400					7.2	.09	21
21	3655.0		7572100	205,900	6866900	202,700					7.3	.05	20
22	3662.0		7777900	198,800	7067000	200,100					7.3	.06	19.4
23	3672.8		8040000	261,000	7316700	249,700					7.3	.48	21
24	3682.9		8256800	216,800	7530700	214,000					7.3	.146	20
25	3687.9		8398300	141,500	7671800	141,100					7.25	.11	19
26	3696.6		8598391	200,091	7877500	205,700					7.27	.03	19
27	37050		8800800	202,409	8085900	213,400					7.3	.03	19
28	37135		8995944	195,144	8293900	208,000					7.3	.10	18.4
29	37212		9180500	184,556	8500200	206,300					7.3	.10	18.3
30	37323		9437673	257,173	8765700	265,500					7.2	.10	17.7
31													

Mixer Pump Replace

total - 6,251,439

Month Oct.

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

Day	#1	#2	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto	Chl #/Day Manual	PH	Chl Res	Temp
1	37404	7.2	9630782	93,109	8973350	207650	29254554	Ø	30972	64691	7.2	.15	16.5
2	37478		9802337	171,555	9131583	158,233					7.3	.16	15
3	37568		1756	199,419	9340000	208,417					7.3	.10	16
4	37670		2536000	251,910	9547000	~~954~~ 207,000					7.3	.03	16
5	3775.1		4489125	195,059	9756000	209,000					7.2	.06	16.6
6	3784.1		6577169	208,984	9970400	214,400					7.2	.04	16.9
7	3794.7		906177	248,468	2156777	244,677					7.18	.05	17.0
8	3803.3		1103584	197,407	4186283	203,946					7.18	.05	17.3
9	3811.9		1320707	217,123	6264588	207,865					7.21	.06	17.5
10	3819.5		1494588	173881	798740	172,252					7.1	.05	17.7
11	3830.8		1765257	270,669	1053750	255,010					7.2	.05	17.8
12	3837.6		1922200	156,943	1216750	163,000					7.2	.09	16.9
13	3846.0		2126400	204,200	1425650	208,900					7.2	.07	16.2
14	3854.4	8.4	2320800	194400	1632400	206750					7.2	.09	15.9
15	38635	9.1	2541686	220886	1854400	222000					7.2	.07	16.0
16	3872.1	14.7	2746730	199,044	2045400	191,000					7.2	.03	16.3
17	3880.4	6.26	2940800	200 070	2247000	201,600					7.2	.09	16.4
18	3889.2	8.8	3148042	207,242	2459300	212,300					7.2	.02	16.6
19	3898.7	9.5	3374956	226914	2680780	221480					7.2	.04	16.4
20	3906.5	7.8	3556600	181644	2870200	189420					7.2	.02	16.6
21	39179		3829700	272,600	3141170	270,970					7.2	.06	16.1
22	39260		4033883	204,683	3352000	210,830					7.2	.10	16
23	39327		4/18/1983	147,900	3508700	156,700					7.1	.08	16.1
24	39419		4390010	208,229	3717200	208,500					7.2	.10	16.1
25	39498		4582000	191,990	3926000	208,800					7.2	.05	15.5
26	3959.1		4800600	218,600	4158900	232,900					7.2	.08	14.2
27	39620.9		4986100	185,500	4363850	204,950					7.2	.04	13.4
28	3975.9		5193770	207,670	4598200	234,350					7.2	.5	12
29	3985.2		5415500	221,730	4839100	240,900					7.2	.2	10.7
30	39917		5553000	137,500	4993200	154,100					7.2	.05	10.1
31	3999.4		5752000	199,000	5211700	218,500					7.2	.03	9.8

total 6,121,218

Recirculating Pump UP & Running 11:10

Power Outage - 11/12/23

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Month Nov

Year 2023

Day	#1 Hours	#2 Hours	Infl/ Mtr	Infl Hour Clock	Effl V Notch Mtr	Effl V Notch GPD	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto (Pump 1)	Chl #/Day Manual (Pump 2)	PH	Total Chlorine Res	Temp
1	4007.7		5934500	182,500	5426900	215 200	279254554	Ø	30972	604691	7.19	.06	9.4
2	4016.0		6138700	204 200	5645500	218,600					7.2	.0	9.5
3	4025.1		6359400	220,700	5867000	221,500					7.2	.10	9.5
4	40357		6640740	281,340	6135550	268,550		Decline			7.2	.06	10
5	40540	9.1	6844870	204130	6338105	202,555		.225			7.2	.05	10.3
6	40540	9.1	7049000	204130	6531400	193,295		.225			7.2	.08	10
7	4063.2	9.2	7273160	224160	6735500	204100		.225			7.2	.03	10.6
8	4072.6	9.4	7493000	219 840	6951000	220,500		.225			7.17	.04	10.1
9	40815	8.9	7707063	214,063	7102300	146,300		.225			7.16	.03	9.7
10	4090.2	8.7	7913057	205,994	7401400	301,100		.225			7.16	.04	9.3
11	4099.3	9.1	8131700	218,643	7644900	238500		.200			7.14	.00	9.5
12	4108.5	9.2	8344760	213,060	7877050	232150	7877050	.150			7.15	.00	9.5
13	4117.4	8.9	8561640	216,880	7962600	85,550		.150			7.15	.05	9.2
14	4125.1	7.7	8748360	186,720	8164075	201,475		.125			7.20	.00	9.1
15	4134.6	9.5	8966870	218510	8406020	241945		.125			7.1	.04	9.3
16	4142.4	5.8	9155669	188,799	8615413	209,123		.100			7.1	.00	9.4
17	41508	8.4	9351480	195,811	8834839	219,696		.100			7.2	.07	9.5
18	41608	10.8	9594,964	243,484	9124889	290.050		.100			7.2	.08	9.0
19	41714	11.4	9838449	243,405	9330941.00	206,052		.110			7.2	.10	9.1
20	41766	5.2	9963650	125,401	9475978	145,037		.110			7.2	.03	9.0
21	4188.6		150,500	186,850	9688586	212,608		.110			7.2	.05	8.9
22	4193.3	4.7	358477	212814	9901400	212,814	279255050	1,995			7.2	.04	8.9
23	4202.3	9	568155	209,708	8345781	152,557	279257045	.110			7.2	.03	9.3
24	4212.3	10.3	809493	241,338	338618.9	254,661		.110			7.3	.04	9.3
25	42205	8.2	998656	189,193	569558	230.940		.110			7.3	.00	7.3
26	42286	8.1	1188037	189,351	790342	200784	lowest recorded	.105			7.3	.02	6.0
27	4236.1	8.5	1359000	170,983	9666555	196,713		.105	3097.3	6469.2	7.3	.02	5.6
28	4244.2	8.1	1548000	189,000	1180000	213,445	279257045	.105	3097.3	6469.2	7.2	.02	5.2
29	4253.0	7.1	1748330	200,330	1400400	220400	279257045	.100	3697.3	6469.2	7.3	.00	4.9
30	4261.3	8.3	1942120	193790	1599470	199070	279257045	.0900	3097.3	6469.2	7.3	.00	4.5
31													

total 6,007,620

204130

Month Dec

CITY OF PARMA
SEWER LAGOONS MONTLY DATA

Year 2023

11-30
Dechlor .0900

Day	#1 Hours	#2 Total Hours	Infl/ Mtr	Infl Hour Clock Total	Effl V Notch Mtr	Effl V Notch GPD Total	Effl Lift station mtr	Effl Lift station GPD	Chl #/Day Auto (RI Pump #1)	Chl #/Day Manual (RI Pump #2)	PH	total Chlor. Res	temp
time 730 1	4268.9	7.6	2115800	173680	1796000	196530	279257045	⊘	3097.3	6468.2	7.3	.00	4.3
2	4278.5	9.4	2336287	220,487	2019370	223,370					7.3	0.02	4.3
3	4287.7	9.4	2555832	219,545	2212422	193,052					7.3	.00	4.5
4	4297.5	10.5	2796000	240,168	2394500	182,078					7.3	.03	4.5
752 5	4307.3	9.8	3023600	227500	2587500	193,000	279257045	0			7.3	.03	5.4
6	4317.4	10.1	3269581	245,981	2794577	206,077					7.3	.0	5.9
7	4326.4	9.0	3480000	210,411	2986000	186,423					7.3	.0	6.2
8	4335.2	9.2	3693000	213,000	3179000	193,000					7.3	.01	6.4
1123 9	4345.2	10.0	3934400	241400	3386700	207700					7.3	.00	6.1
1200 10	4354.4	9.2	4155000	220600	3566000	179300					7.3	.00	5.8
11	4363.2	9.2	4363000	208,000	3741710	175,710					7.3	.0	5.8
12	4372.9	9.7	4602000	239,000	3913000	171,790					7.3	.04	5.9
13	4383.3	10.9	4851830	249,830	4116600	203,600					7.3	.07	6.2
14	4392.8	10.9	5084570	232,740	4307500	190,900					7.3	.03	6.3
15	4402.7	9.1	5317000	232,430	4524000	216,500					7.3	.02	6.1
16	4414.0	12.0	5590700	273,700	4764500	240,500					7.3	.04	6.1
17	4422.2	8.2	5793000	202,300	4956946	192,446					7.3	.04	5.5
18	4429.6	7.4	5997000	174,000	5119500	160,554					7.4	.03	5.4
752 19	4437.8	6.3	6171700	201,700	5317900	140,400					7.3	.02	5.4
8:30 20	4447.6	10.2	6410549	238,849	5540500	222,600					7.3	.02	5.0
21	4456.1	9.5	6623749	213,200	5761500	221,000					7.3	.01	5.1
22	4465.6	15.0	6853055	229306	5941900	180400					7.3	.01	5.3
23	4474.8	6.0	7081155	228,100	6162200	220300					7.3	.02	5.6
3:30 24	4487.0	17.0	7378100	296,945	6436200	274,000					7.3	.01	5.5
1000 25	4492.9	5.9 752457	7524390	146290	6608442	172242					7.3	.00	5.0
926 26	4501.6	8.7	7732000	207610	6829300	220,858					7.3	.03	4.6
1300 27	4509.5	8.1	7924000	192,000	7043900	214600					7.36	.00	4.3
800 28	4519.8	10.3	8168900	244,900	7294500	250600					7.38	.03	4.2
845 29	4528.6	9.6	8375000	206,100	7510000	215,500					7.36	.02	4.3
930 30	4537.3	9.3	8594970	219970	7747700	237700					7.36	.00	4.3
1000 31	4547.0	9.7	8831540	236570	8008480	260780					7.35	.00	4.5

total 6,715,740

APPENDIX E

COST ESTIMATES

New Reuse Pond - Alternative 2 5/12/2025
City of Parma by BT/SL
PA 24-0312

Alternative 2 - Summary

Work Item	Est. Cost	
New 6.5 Acre, 9' Deep Lagoon 4	$	6,731,963.52
Pumps	$	556,281.04
Valve and Bypass Piping	$	87,634.72
Sprinkler System Pivot Installation	$	1,877,875.80
	$	9,253,755.07

New Reuse Pond - Alternative 2 (Fully Reuse) 5/12/2025
City of Parma by BT
PA25-0312

New 6.5 Acre Lagoon 4

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub Ex. Drying Bed Area	Acre	6.5	$2,405.09	$15,633.09
2	Disposal of Clear & Grub Debris - Local Site	LCY	6820	$15.78	$107,619.60
3	Excavate Ex. Drying Bed Dikes Down - Assume 6.5 acre Area	BCY	66000	$7.17	$473,220.00
4	Excess Soil Waste to Ex. Gravel Pit	LCY	46000	$5.76	$264,960.00
5	Construct New Lagoon Dikes - 6.5 Acre Lagoon	LCY	21000	$5.76	$120,960.00
6	Place HDPE Pond Liner w/ Appurtenances	SF	283140	$10.18	$2,882,365.20
7	Place Aggregate Base Road Surface on Top of Dike	LCY	922	$41.03	$37,829.66
8					$0.00
				RAW SUBTOTAL	$3,902,587.55
	Mob/Demob - 10%			10%	$390,258.75
	Startup/Cleanup - 5%			5%	$195,129.38
				RAW TOTAL	$4,487,975.68
	Overhead and Profit			**20%**	$897,595.14
	SUBTOTAL				$5,385,570.81
	Construction Contingency			25%	$1,346,392.70
	TOTAL (With Contingency)				$6,731,963.52

New Pumps - Alternative 2 5/12/2025
City of Parma by BT
PA25-0312

Pump Vault and Pumps

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.25	$2,405.09	$601.27
2	Disposal of Clear & Grub Debris - Local Site	LCY	175	$15.78	$2,761.50
3	Trench Excavation	BCY	951	$7.13	$6,780.63
4	Excavate for Pump Vault	BCY	30	$7.17	$215.10
5	Place Pump Wet Well Vault	VF	8	$900.00	$7,200.00
6	Install New 100 Hp Pump w/ Motor and Connecting Piping	EA	2	$48,409.15	$96,818.30
7	Backfill New Vault	LCY	10	$5.76	$57.60
8	Disposal of Excess Soil	LCY	29	$15.78	$457.62
9	Allowance for Power to New Pumps	EA	1	$25,000.00	$25,000.00
10	Common 8" Pipe to Manifold - C900	LF	2140	$55.34	$118,427.60
11	Manifold Header	EA	2	$5,894.95	$11,789.90
12	Pipe Bedding	LCY	464	$23.34	$10,829.76
13	Valves at Manifold Header	EA	4	$2,900.46	$11,601.84
14	Air Release Valve	EA	3	$1,500.00	$4,500.00
15	Inline Debris Filter	EA	2	$4,500.00	$9,000.00
16	Couple to Distribution System Piping	EA	8	$519.38	$4,155.04
17	Backfill Trenches	LCY	773	$5.16	$3,988.68
18	Disposal of Excess Soil	LCY	464	$15.78	$7,321.92
19	Surface Restoration	SF	6500	$0.15	$975.00
20					$0.00
				RAW SUBTOTAL	$322,481.76
	Mob/Demob - 10%			10%	$32,248.18
	Startup/Cleanup - 5%			5%	$16,124.09
				RAW TOTAL	$370,854.03
	Overhead and Profit			**20%**	$74,170.81
	SUBTOTAL				$445,024.83
	Construction Contingency			25%	$111,256.21
	TOTAL (With Contingency)				$556,281.04

New Valve and Bypass Piping - Alternative 2 5/12/2025
City of Parma by BT
PA25-0312

Piping and Valves for Bypass

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.05	$2,405.09	$120.25
2	Disposal of Clear & Grub Debris - Local Site	LCY	35	$15.78	$552.30
3	Trench Excavation	BCY	180	$7.13	$1,283.40
4	Place 12" HDPE Pipe for Bypass to Lagoon 3	LF	800	$39.88	$31,904.00
5	12" Butterfly Valve for Bypass to Lagoon 3	EA	1	$1,219.54	$1,219.54
6	12" Butterfly Valve for Pipe from Ex. Lift Staion to Lagoon 4	EA	2	$1,219.54	$2,439.08
7	Plug/Cap Ex. Abandoned Pipe Lines	EA	7	$500.00	$3,500.00
8	12" Sewer Pipe from Declor to Irr. Pump Wet Well	LF	10	$55.34	$553.40
9	Pipe Bedding	LCY	117	$23.34	$2,730.78
10	Backfill Trenches	LCY	117	$5.16	$603.72
11	Disposal of Excess Soil	LCY	117	$15.78	$1,846.26
12	Surface Restoration	SF	4050	$1.00	$4,050.00
13					$0.00
				RAW SUBTOTAL	$50,802.73
	Mob/Demob - 10%			10%	$5,080.27
	Startup/Cleanup - 5%			5%	$2,540.14
				RAW TOTAL	$58,423.14
	Overhead and Profit			**20%**	$11,684.63
	SUBTOTAL				$70,107.77
	Construction Contingency			25%	$17,526.94
	TOTAL (With Contingency)				$87,634.72

New Pivot Sprinkler Irrigation System - Alternative 2 5/12/2025
City of Parma by BT
PA25-0312

Sprinkler Pivots

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Costs for Leasing Property for 50 Years ($12.50/Acre x 12 Mo x 50 Years)	Acre	90.00	$7,200.00	$648,000.00
2	Clear & Grub for Piping Installation	Acre	2.25	$2,405.09	$5,411.45
3	Disposal of Clear & Grub Debris - Local Site	LCY	1573	$15.78	$24,821.94
4	Trench Excavation	BCY	820	$7.13	$5,846.60
5	Pivot Sprinkler 1 with 6" Pipe (876 ft)	EA	1	$76,859.40	$76,859.40
6	Sprinkler 1 - Electrical Power and Control Wiring	LF	3014	$32.00	$96,448.00
7	Pivot Sprinkler 2 with 8" Pipe (1585 ft)	EA	1	$91,556.74	$91,556.74
8	Sprinkler 2 - Electrical Power and Control Wiring	LF	3723	$32.00	$119,136.00
9	Pipe Bedding	LCY	356	$23.34	$8,309.04
10	Backfill Trenches	LCY	710	$5.16	$3,663.60
11	Disposal of Excess Soil	LCY	356	$15.78	$5,617.68
12	Surface Restoration	SF	19688	$0.15	$2,953.20
13					$0.00
				RAW SUBTOTAL	$1,088,623.65
	Mob/Demob - 10%			10%	$108,862.37
	Startup/Cleanup - 5%			5%	$54,431.18
				RAW TOTAL	$1,251,917.20
	Overhead and Profit			**20%**	$250,383.44
	SUBTOTAL				$1,502,300.64
	Construction Contingency			25%	$375,575.16
	TOTAL (With Contingency)				$1,877,875.80

New Reuse Pond - Alternative 3 5/12/2025
City of Parma by BT/SL
PA 24-0312

Alternative 3 - Summary

Work Item		Est. Cost - 45 Evapor	
Existing Dike Widening		$	119,512.95
Lagoon 4 Construction - 6 Acre		$	6,148,269.10
New Pumps		$	1,128,999.88
New Valve and Bypass Piping		$	91,442.03
New Evaporators		$	4,652,546.20
	Total Cost	$	12,140,770.16

Widen Existing Dikes - Alternative 3 5/12/2025
City of Parma by BT
PA 24-0312

Widen Existing Dikes to 18' width

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub Ex. Dike Toe Area	Acre	1	$2,405.00	$2,405.00
2	Disposal of Clear & Grub Debris - Local Site	LCY	500	$15.78	$7,890.00
3	Load and Haul On-Site Fill Soil for Widening	LCY	3000	$7.17	$21,510.00
4	Place and Compact Fill Soil for Dike Widening	LCY	3000	$5.76	$17,280.00
5	Place Aggregate Base Road Surface on Top of Dike	LCY	154	$41.03	$6,318.62
6	Place Rip Rap Toe of Dike Aggregate on Sandhollow Creek Side	LCY	245	$56.65	$13,879.25
					$0.00
				RAW SUBTOTAL	$69,282.87
	Mob/Demob - 10%			10%	$6,928.29
	Startup/Cleanup - 5%			5%	$3,464.14
				RAW TOTAL	$79,675.30
	Overhead and Profit			**20%**	$15,935.06
	SUBTOTAL				$95,610.36
	Construction Contingency			25%	$23,902.59
	TOTAL (With Contingency)				$119,512.95

Rehabilitate Ex. RI Beds - Alternative 3 5/12/2025
City of Parma by BT
PA 24-0312

Construct New Lagoon - 6 Acres

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub Ex. Drying Bed Area	Acre	6	$2,405.09	$14,430.54
2	Disposal of Clear & Grub Debris - Local Site	LCY	6295	$15.78	$99,335.10
3	Excavate Ex. Drying Bed Dikes Down - 6 Acre Area	BCY	51500	$7.17	$369,255.00
4	Construct New Lagoon Dikes - 6 Acre Lagoon	LCY	26230	$5.76	$151,084.80
5	Disposal of Excess Excavation	LCY	40720	$5.76	$234,547.20
6	Place HDPE Pond Liner w/ Appurtenances	SF	261360	$10.18	$2,660,644.80
7	Place Aggregate Base Road Surface on Top of Dike - Assume 18' Wide	LCY	851	$41.03	$34,916.53
8					$0.00
				RAW SUBTOTAL	$3,564,213.97
	Mob/Demob - 10%			10%	$356,421.40
	Startup/Cleanup - 5%			5%	$178,210.70
				RAW TOTAL	$4,098,846.07
	Overhead and Profit			**20%**	$819,769.21
	SUBTOTAL				$4,918,615.28
	Construction Contingency			25%	$1,229,653.82
		TOTAL (With Contingency)			$6,148,269.10

New Pumps - Alternative 3 5/12/2025
City of Parma by BT
PA 24-0312

New Pumps

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.25	$2,405.09	$601.27
2	Disposal of Clear & Grub Debris - Local Site	LCY	175	$15.78	$2,761.50
3	Sand Layer in Filter Bag for Under Rock Crib	LCY	650	$55.00	$35,750.00
4	Extra Filter Bag and for Sewing Seam in Filter Bag	LF	300	$20.00	$6,000.00
5	Place Rock Crib Aggregate for Pump Sump Area	LCY	3852	$75.00	$288,900.00
6	Trench Excavation	BCY	750	$7.13	$5,347.50
7	Install Pump Cans	EA	2	$12,000.00	$24,000.00
8	Install New 300 Hp Pump w/ Motor and Connecting Piping	EA	2	$76,046.00	$152,092.00
9	Install Concrete Base for Setting Pumps On	CY	13	$400.00	$5,200.00
10	Allowance for Power to New Pumps	EA	1	$25,000.00	$25,000.00
11	10" HDPE Pipe to Evaporators	LF	750	$29.11	$21,832.50
12	8" HDPE Pipe to Evaporators	LF	1350	$21.05	$28,417.50
13	6" HDPE Pipe to Evaporators	LF	525	$13.61	$7,145.25
14	4" HDPE Pipe to Evaporators	LF	600	$7.86	$4,716.00
15	2" HDPE Pipe to Evaporators	LF	150	$4.01	$601.50
16	Pipe Bedding	LCY	487	$23.34	$11,366.58
17	Inline Debris Filter	EA	2	$4,500.00	$9,000.00
18	Couple to Distribution System Piping	EA	3	$519.38	$1,558.14
19	Backfill Trenches	LCY	488	$5.16	$2,518.08
20	Disposal of Excess Soil	LCY	487	$15.78	$7,684.86
21	Surface Restoration	SF	14000	$1.00	$14,000.00
22					$0.00
				RAW SUBTOTAL	$654,492.68
	Mob/Demob - 10%			10%	$65,449.27
	Startup/Cleanup - 5%			5%	$32,724.63
				RAW TOTAL	$752,666.58
	Overhead and Profit			**20%**	$150,533.32
	SUBTOTAL				$903,199.90
	Construction Contingency			25%	$225,799.98
	TOTAL (With Contingency)				$1,128,999.88

New Valve and Bypass Piping - Alternative 3 5/12/2025
City of Parma by BT
PA 24-0312

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.05	$2,405.09	$120.25
2	Disposal of Clear & Grub Debris - Local Site	LCY	35	$15.78	$552.30
3	Trench Excavation	BCY	190	$7.13	$1,354.70
4	Place 12" Bypass Piping	LF	855	$39.88	$34,097.40
5	12" Butterfly Valve for Bypass to Lagoon 3	EA	1	$1,219.54	$1,219.54
6	12" Butterfly Valve for Pipe from Ex. Lift Staion to Lagoon 4	EA	2	$1,219.54	$2,439.08
7	Plug/Cap Ex. Abandoned Pipe Lines	EA	7	$500.00	$3,500.00
8	Pipe Bedding	LCY	123	$23.34	$2,870.82
9	Backfill Trenches	LCY	124	$5.16	$639.84
10	Disposal of Excess Soil	LCY	123	$15.78	$1,940.94
11	Surface Restoration	SF	4275	$1.00	$4,275.00
12					$0.00
				RAW SUBTOTAL	$53,009.87
	Mob/Demob - 10%			10%	$5,300.99
	Startup/Cleanup - 5%			5%	$2,650.49
				RAW TOTAL	$60,961.36
	Overhead and Profit			**20%**	$12,192.27
	SUBTOTAL				$73,153.63
	Construction Contingency			25%	$18,288.41
	TOTAL (With Contingency)				$91,442.03

New Evaporator System - Alternative 3 5/12/2025
City of Parma by BT
PA 24-0312

Evaporators = 24 each

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Trench Excavation	BCY	175	$7.13	$1,247.75
2	Construct Concrete Pad for Evaporators - 6' x 6' x 6"	EA	45	$350.00	$15,750.00
3	Evaporator	EA	45	$35,708.00	$1,606,860.00
4	Land Based Pump Package w/ 100' Power Cable	EA	15	$10,205.70	$153,085.50
5	VFD - 15 Hp + 7.5 Hp Invertek Assembly for DS	EA	15	$8,731.00	$130,965.00
6	Power Cable from Evaporator to Evaporator Control	LF	4710	$23.63	$111,297.30
7	Backfill Trench	LCY	228	$5.16	$1,176.48
8	Drift Sentinel Weather Station	EA	1	$9,183.00	$9,183.00
9	Delux Y-Strainer	EA	45	$305.00	$13,725.00
10	Electrical Control Stand	EA	1	$2,388.00	$2,388.00
11	Shipping and Handling, Installation of RWI System	EA	45	$12,500.00	$562,500.00
12	Electrical Power to Evaporator Control Panel Allowance	EA	1	$75,000.00	$75,000.00
13	Place Aggregate Base Road Surface on Top of Dike	LCY	340	$41.03	$13,950.20
					$0.00
				RAW SUBTOTAL	$2,697,128.23
	Mob/Demob - 10%			10%	$269,712.82
	Startup/Cleanup - 5%			5%	$134,856.41
				RAW TOTAL	$3,101,697.46
	Overhead and Profit			**20%**	$620,339.49
	SUBTOTAL				$3,722,036.96
	Construction Contingency			25%	$930,509.24
	TOTAL (With Contingency)				$4,652,546.20

New Reuse Pond - Alternative 4 5/13/2025
City of Parma by BT/SL
PA 24-0312

Alternative 4 - Summary

Work Item	Phase 1 Est. Cost - 11 Evapor		
Lagoon 4 Construction - 4 Acre	$	3,556,369.57	
New Pumps	$	892,294.60	
New Valve and Bypass Piping	$	55,729.63	
New Evaporators	$	1,344,665.46	Total Cost
	$	5,849,059.27	$ 5,849,059.27

Rehabilitate Ex. RI Beds - Alternative 4 5/13/2025
City of Parma by BT
PA 24-0312
Construct New Lagoon - 4 Acres
Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub Ex. Drying Bed Area	Acre	4	$2,405.09	$9,620.36
2	Disposal of Clear & Grub Debris - Local Site	LCY	4195	$15.78	$66,197.10
3	Excavate Ex. Drying Bed Dikes Down - 4 Acres Area	BCY	12442	$7.17	$89,209.14
4	Construct New Lagoon Dikes - 4 Acre Lagoon	LCY	11246	$5.76	$64,776.96
5	Disposal of Excess Excavation	LCY	4929	$5.76	$28,391.04
6	Place HDPE Pond Liner w/ Appurtenances	SF	174240	$10.18	$1,773,763.20
7	Place Aggregate Base Road Surface on Top of Dike - Assume 18' Wide	LCY	724	$41.03	$29,705.72
8					$0.00
				RAW SUBTOTAL	$2,061,663.52
	Mob/Demob - 10%			10%	$206,166.35
	Startup/Cleanup - 5%			5%	$103,083.18
				RAW TOTAL	$2,370,913.05
	Overhead and Profit			**20%**	$474,182.61
	SUBTOTAL				$2,845,095.66
	Construction Contingency			25%	$711,273.91
	TOTAL (With Contingency)				$3,556,369.57

New Pumps - Alternative 4 5/13/2025
City of Parma by BT
PA 24-0312
New Pumps
Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.25	$2,405.09	$601.27
2	Disposal of Clear & Grub Debris - Local Site	LCY	175	$15.78	$2,761.50
3	Sand Layer in Filter Bag for Under Rock Crib	LCY	650	$55.00	$35,750.00
4	Extra Filter Bag and for Sewing Seam in Filter Bag	LF	300	$20.00	$6,000.00
5	Place Rock Crib Aggregate for Pump Sump Area	LCY	3852	$75.00	$288,900.00
6	Trench Excavation	BCY	200	$7.13	$1,426.00
7	Install Pump Cans	EA	2	$12,000.00	$24,000.00
8	Install New 100 Hp Pump w/ Motor and Connecting Piping	EA	2	$48,409.15	$96,818.30
9	Install Concrete Base for Setting Pumps On	CY	13	$400.00	$5,200.00
10	Allowance for Power to New Pumps	EA	1	$25,000.00	$25,000.00
11	8" HDPE Pipe to Evaporators	LF	150	$21.05	$3,157.50
12	6" HDPE Pipe to Evaporators	LF	375	$13.61	$5,103.75
13	4" HDPE Pipe to Evaporators	LF	300	$7.86	$2,358.00
14	2" HDPE Pipe to Evaporators	LF	75	$4.01	$300.75
15	Pipe Bedding	LCY	130	$23.34	$3,034.20
16	Inline Debris Filter	EA	2	$4,500.00	$9,000.00
17	Couple to Distribution System Piping	EA	2	$519.38	$1,038.76
18	Backfill Trenches	LCY	130	$5.16	$670.80
19	Disposal of Excess Soil	LCY	130	$15.78	$2,051.40
20	Surface Restoration	SF	4100	$1.00	$4,100.00
21					$0.00
				RAW SUBTOTAL	$517,272.23
	Mob/Demob - 10%			10%	$51,727.22
	Startup/Cleanup - 5%			5%	$25,863.61
				RAW TOTAL	$594,863.07
	Overhead and Profit			**20%**	$118,972.61
	SUBTOTAL				$713,835.68
	Construction Contingency			25%	$178,458.92
	TOTAL (With Contingency)				$892,294.60

New Valve and Bypass Piping - Alternative 4 5/13/2025
City of Parma by BT
PA 24-0312

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.05	$2,405.09	$120.25
2	Disposal of Clear & Grub Debris - Local Site	LCY	35	$15.78	$552.30
3	Trench Excavation	BCY	112	$7.13	$798.56
4	Place 12" Bypass Piping	LF	505	$39.88	$20,139.40
5	12" Butterfly Valve for Pipe from Ex. Lift Staion to Lagoon 4	EA	2	$1,219.54	$2,439.08
6	Plug/Cap Ex. Abandoned Pipe Lines	EA	5	$500.00	$2,500.00
7	Pipe Bedding	LCY	73	$23.34	$1,703.82
8	Backfill Trenches	LCY	73	$5.16	$376.68
9	Disposal of Excess Soil	LCY	73	$15.78	$1,151.94
10	Surface Restoration	SF	2525	$1.00	$2,525.00
11					$0.00
				RAW SUBTOTAL	$32,307.03
	Mob/Demob - 10%			10%	$3,230.70
	Startup/Cleanup - 5%			5%	$1,615.35
				RAW TOTAL	$37,153.09
	Overhead and Profit			**20%**	$7,430.62
	SUBTOTAL				$44,583.71
	Construction Contingency			25%	$11,145.93
	TOTAL (With Contingency)				$55,729.63

New Evaporator System - Alternative 4 5/13/2025
City of Parma by BT
PA 24-0312
Evaporators = 11 each

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Trench Excavation	BCY	178	$7.13	$1,269.14
2	Construct Concrete Pad for Evaporators - 6' x 6' x 6"	EA	12	$350.00	$4,200.00
3	Evaporator	EA	12	$35,708.00	$428,496.00
4	Land Based Pump Package w/ 100' Power Cable	EA	4	$10,205.70	$40,822.80
5	VFD - 15 Hp + 7.5 Hp Invertek Assembly for DS	EA	4	$8,731.00	$34,924.00
6	Power Cable from Evaporator to Evaporator Control	LF	1255	$23.63	$29,655.65
7	Backfill Trench	LCY	233	$5.16	$1,202.28
8	Drift Sentinel Weather Station	EA	1	$9,183.00	$9,183.00
9	Delux Y-Strainer	EA	12	$305.00	$3,660.00
10	Electrical Control Stand	EA	1	$2,388.00	$2,388.00
11	Shipping and Handling, Installation of RWI System	EA	12	$12,500.00	$150,000.00
12	Electrical Power to Evaporator Control Panel Allowance	EA	1	$50,000.00	$50,000.00
13	Place Aggregate Base Road Surface on Top of Dike	LCY	578	$41.03	$23,715.34
					$0.00
				RAW SUBTOTAL	$779,516.21
	Mob/Demob - 10%			10%	$77,951.62
	Startup/Cleanup - 5%			5%	$38,975.81
				RAW TOTAL	$896,443.64
	Overhead and Profit			**20%**	$179,288.73
	SUBTOTAL				$1,075,732.37
	Construction Contingency			25%	$268,933.09
	TOTAL (With Contingency)				$1,344,665.46

New Reuse Pond - Alternative 5 5/13/2025
City of Parma by BT/SL
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Alternative 5 - Summary

Work Item	Est. Cost	
New 6 Acre, 6' Deep, 3' freeboard	$	6,344,306.38
Pumps	$	1,124,540.67
Valve and Bypass Piping	$	92,672.56
Pivot Irrigation System	$	756,435.19
Evaporators	$	1,127,382.27
	$	9,445,337.07

New Reuse Pond - Alternative 5 5/13/2025

City of Parma by BT/SL

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New 6 Acre, 6' Deep, 3' freeboard

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub Ex. Drying Bed Area	Acre	6	$2,405.09	$14,430.54
2	Disposal of Clear & Grub Debris - Local Site	LCY	6295	$15.78	$99,335.10
3	Excavate Ex. Drying Bed Dikes Down	BCY	51500	$7.17	$369,255.00
4	Fill In Ex. Gravel Pit Area for New Reuse Pond - Use On-site Source	LCY	60450	$5.76	$348,192.00
5	Construct New Lagoon Dikes	LCY	26230	$5.76	$151,084.80
6	Place HDPE Pond Liner w/ Appurtenances	SF	261360	$10.18	$2,660,644.80
7	Place Aggregate Base Road Surface on Top of Dike	LCY	851	$41.03	$34,916.53
					$0.00
				RAW SUBTOTAL	$3,677,858.77
	Mob/Demob - 10%			10%	$367,785.88
	Startup/Cleanup - 5%			5%	$183,892.94
				RAW TOTAL	$4,229,537.59
	Overhead and Profit			**20%**	$845,907.52
	SUBTOTAL				$5,075,445.10
	Construction Contingency			25%	$1,268,861.28
	TOTAL (With Contingency)				$6,344,306.38

New Pumps - Alternative 5 5/13/2025
City of Parma by BT/SL
PA 24-0312
Pumps
Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.25	$2,405.09	$601.27
2	Disposal of Clear & Grub Debris - Local Site	LCY	175	$15.78	$2,761.50
3	Sand Layer in Filter Bag for Under Rock Crib	LCY	650	$55.00	$35,750.00
4	Extra Filter Bag and for Sewing Seam in Filter Bag	LF	300	$20.00	$6,000.00
5	Place Rock Crib Aggregate for Pump Sump Area	LCY	3852	$75.00	$288,900.00
6	Trench Excavation	BCY	167	$7.13	$1,190.71
7	Install Pump Cans	EA	2	$12,000.00	$24,000.00
8	Install New 60 Hp Pump w/ Motor and Connecting Piping	EA	2	$25,000.00	$50,000.00
9	Install Concrete Base for Setting Pumps On	CY	13	$400.00	$5,200.00
10	Allowance for Power to New Pumps	EA	1	$25,000.00	$25,000.00
11	6" HDPE Pipe to Evaporators	LF	375	$13.61	$5,103.75
12	4" HDPE Pipe to Evaporators	LF	300	$7.86	$2,358.00
13	2" HDPE Pipe to Evaporators	LF	75	$4.01	$300.75
14	Pipe Bedding	LCY	109	$23.34	$2,544.06
15	Inline Debris Filter	EA	2	$4,500.00	$9,000.00
16	Couple to Distribution System Piping	EA	2	$519.38	$1,038.76
17	Backfill Trenches	LCY	109	$5.16	$562.44
18	Disposal of Excess Soil	LCY	109	$15.78	$1,720.02
19	Surface Restoration	SF	3500	$1.00	$3,500.00
20	Trench Excavation	BCY	738	$7.13	$5,261.94
21	Excavate for Pump Vault	BCY	30	$7.17	$215.10
22	Place Pump Wet Well Vault	VF	8	$900.00	$7,200.00
23	Install New 20 Hp Pump w/ Motor and Connecting Piping	EA	2	$18,500.00	$37,000.00
24	Backfill New Vault	LCY	10	$5.76	$57.60
25	Disposal of Excess Soil	LCY	29	$15.78	$457.62
26	Allowance for Power to New Pumps	EA	1	$25,000.00	$25,000.00
27	Common 6" Pipe to Manifold - C900	LF	1660	$39.40	$65,404.00
28	Manifold Header	EA	1	$5,894.95	$5,894.95
29	Pipe Bedding	LCY	360	$23.34	$8,402.40
30	Valves at Manifold Header	EA	2	$2,900.46	$5,800.92
31	Air Release Valve	EA	2	$1,500.00	$3,000.00
32	Inline Debris Filter	EA	2	$4,500.00	$9,000.00
33	Couple to Distribution System Piping	EA	8	$519.38	$4,155.04
34	Backfill Trenches	LCY	600	$5.16	$3,096.00
35	Disposal of Excess Soil	LCY	360	$15.78	$5,680.80
36	Surface Restoration	SF	5000	$0.15	$750.00
37					$0.00
				RAW SUBTOTAL	$651,907.63
	Mob/Demob - 10%			10%	$65,190.76
	Startup/Cleanup - 5%			5%	$32,595.38
				RAW TOTAL	$749,693.78
	Overhead and Profit			**20%**	$149,938.76
	SUBTOTAL				$899,632.53
	Construction Contingency			25%	$224,908.13
	TOTAL (With Contingency)				$1,124,540.67

New Valve and Bypass Piping - Alternative 5 5/13/2025

City of Parma by BT/SL

PA 24-0312

Valve and Bypass Piping

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Clear & Grub for Piping and Valve/Pump Installation	Acre	0.05	$2,405.09	$120.25
2	Disposal of Clear & Grub Debris - Local Site	LCY	35	$15.78	$552.30
3	Trench Excavation	BCY	193	$7.13	$1,376.09
4	Place 12" Bypass Piping	LF	855	$39.88	$34,097.40
5	12" Butterfly Valve for Bypass to Lagoon 3	EA	1	$1,219.54	$1,219.54
6	12" Butterfly Valve for Pipe from Ex. Lift Staion to Lagoon 4	EA	2	$1,219.54	$2,439.08
7	Plug/Cap Ex. Abandoned Pipe Lines	EA	7	$500.00	$3,500.00
8	12" Sewer Pipe from Declor to Irr. Pump Wet Well	LF	10	$55.34	$553.40
9	Pipe Bedding	LCY	125	$23.34	$2,917.50
10	Backfill Trenches	LCY	126	$5.16	$650.16
11	Disposal of Excess Soil	LCY	125	$15.78	$1,972.50
12	Surface Restoration	SF	4325	$1.00	$4,325.00
				RAW SUBTOTAL	$53,723.22
	Mob/Demob - 10%			10%	$5,372.32
	Startup/Cleanup - 5%			5%	$2,686.16
				RAW TOTAL	$61,781.71
	Overhead and Profit			**20%**	$12,356.34
	SUBTOTAL				$74,138.05
	Construction Contingency			25%	$18,534.51
	TOTAL (With Contingency)				$92,672.56

New Pivot Sprinkler Irrigation System - Alternative 5 5/13/2025

City of Parma by BT/SL

PA 24-0312

Pivot Irrigation System

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Costs for Leasing Property for 50 Years ($12.50/Acre x 12 Mo x 50 Years)	Acre	36.20	$7,200.00	$260,640.00
2	Clear & Grub for Piping Installation	Acre	0.60	$2,405.09	$1,443.05
3	Disposal of Clear & Grub Debris - Local Site	LCY	565	$15.78	$8,915.70
4	Trench Excavation	BCY	260	$7.80	$2,028.00
5	Pivot Sprinkler 1 with 6" Pipe (876 ft)	EA	1	$76,859.40	$76,859.40
6	Sprinkler 1 - Electrical Power and Control Wiring	LF	2534	$32.00	$81,088.00
7	Pipe Bedding	LCY	127	$23.34	$2,964.18
8	Backfill Trenches	LCY	211	$5.16	$1,088.76
9	Disposal of Excess Soil	LCY	127	$15.78	$2,004.06
10	Surface Restoration	SF	9880	$0.15	$1,482.00
11					$0.00
				RAW SUBTOTAL	$438,513.15
	Mob/Demob - 10%			10%	$43,851.32
	Startup/Cleanup - 5%			5%	$21,925.66
				RAW TOTAL	$504,290.13
	Overhead and Profit			**20%**	$100,858.03
	SUBTOTAL				$605,148.15
	Construction Contingency			25%	$151,287.04
		TOTAL (With Contingency)			$756,435.19

New Evaporator System - Alternative 5 5/13/2025

City of Parma by BT/SL

PA 24-0312

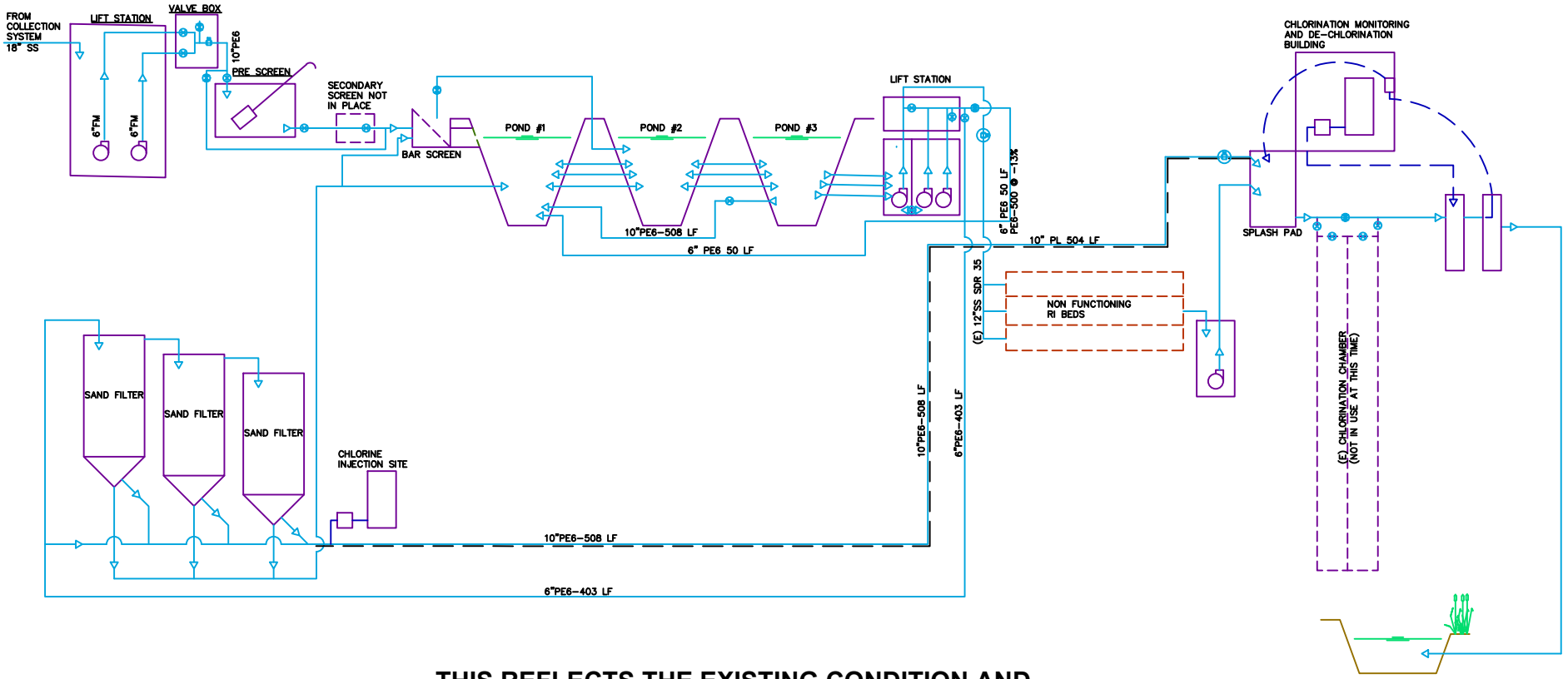
Evaporators

Probable Construction Cost

Item No.	Description	Unit	Amount	Unit Price	Total
1	Trench Excavation	BCY	74	$7.13	$527.62
2	Construct Concrete Pad for Evaporators - 6' x 6' x 6"	EA	10	$350.00	$3,500.00
3	Evaporator	EA	10	$35,708.00	$357,080.00
4	Land Based Pump Package w/ 100' Power Cable	EA	4	$10,205.70	$40,822.80
5	VFD - 15 Hp + 7.5 Hp Invertek Assembly for DS	EA	4	$8,731.00	$34,924.00
6	Power Cable from Evaporator to Evaporator Control	LF	1000	$23.63	$23,630.00
7	Trench Backfill	LCY	96	$5.16	$495.36
8	Drift Sentinel Weather Station	EA	1	$9,183.00	$9,183.00
9	Delux Y-Strainer	EA	10	$305.00	$3,050.00
10	Electrical Control Stand	EA	1	$2,388.00	$2,388.00
11	Shipping and Handling, Installation of RWI System	EA	10	$12,500.00	$125,000.00
12	Electrical Power to Evaporator Control Panel Allowance	EA	1	$50,000.00	$50,000.00
13	Place Aggregate Base Road Surface on Top of Dike	LCY	72	$41.03	$2,954.16
14					$0.00
				RAW SUBTOTAL	$653,554.94
	Mob/Demob - 10%			10%	$65,355.49
	Startup/Cleanup - 5%			5%	$32,677.75
				RAW TOTAL	$751,588.18
	Overhead and Profit			**20%**	$150,317.64
	SUBTOTAL				$901,905.82
	Construction Contingency			25%	$225,476.45
	TOTAL (With Contingency)				$1,127,382.27

APPENDIX F

FIGURES AND GRAPHICS



THIS REFLECTS THE EXISTING CONDITION AND CAN NOT MEET THE PERMIT DISCHARGE REQUIREMENTS

LEGEND

- EXISTING PIPING
- EXISTING EQUIPMENT
- UNUSED ITEMS
- EXISTING CONTROL AND CHLORINE
- WATER LINE
- NEW PIPING
- NEW EQUIPMENT
- NEW CONTROL AND CHLORINE

HECO ENGINEERS

WASTEWATER FACILITY FLOW DIAGRAM

PARMA WWTP ALTERNATIVE 1
Existing WWTP Improvements

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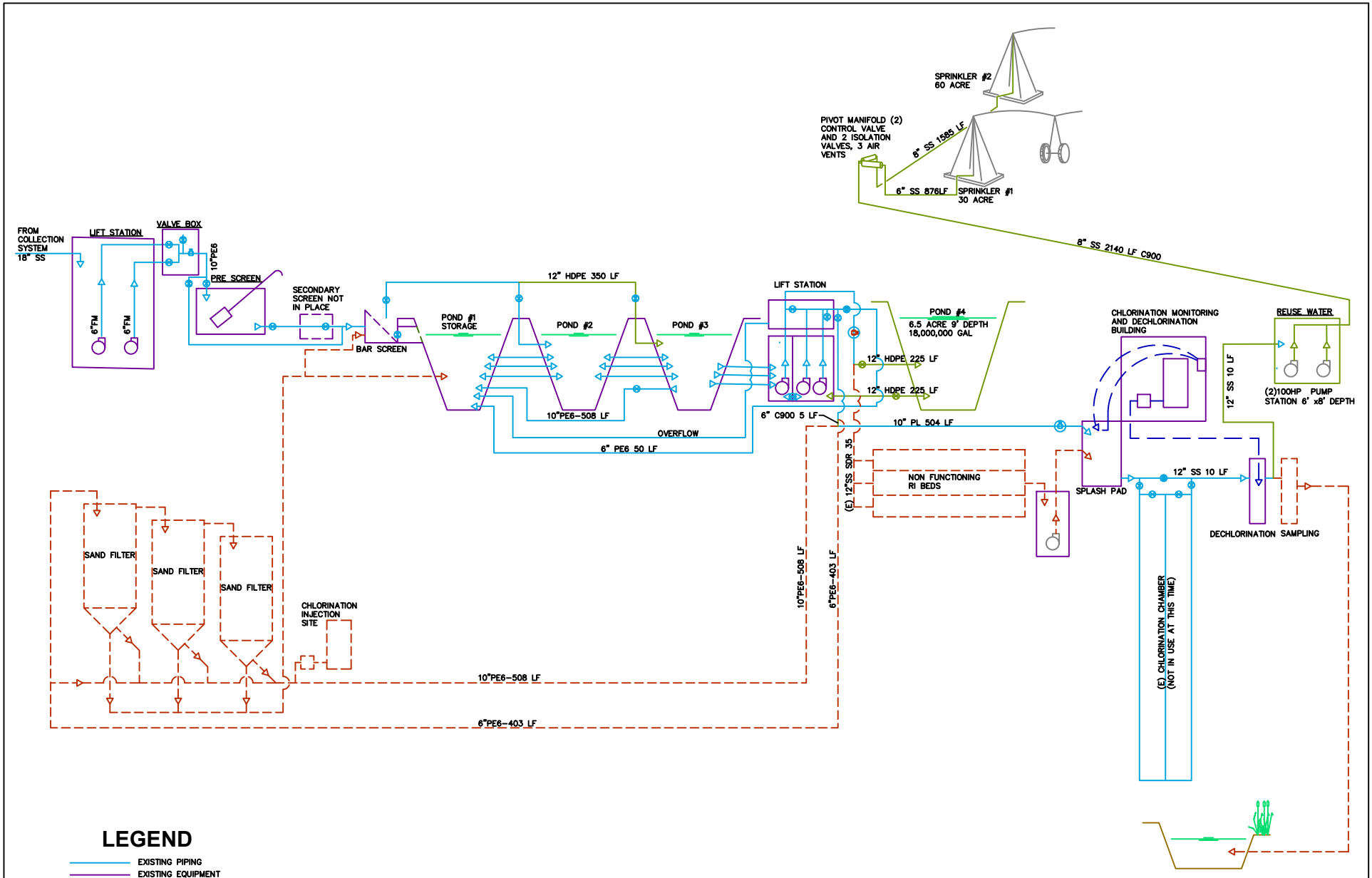


LEGEND

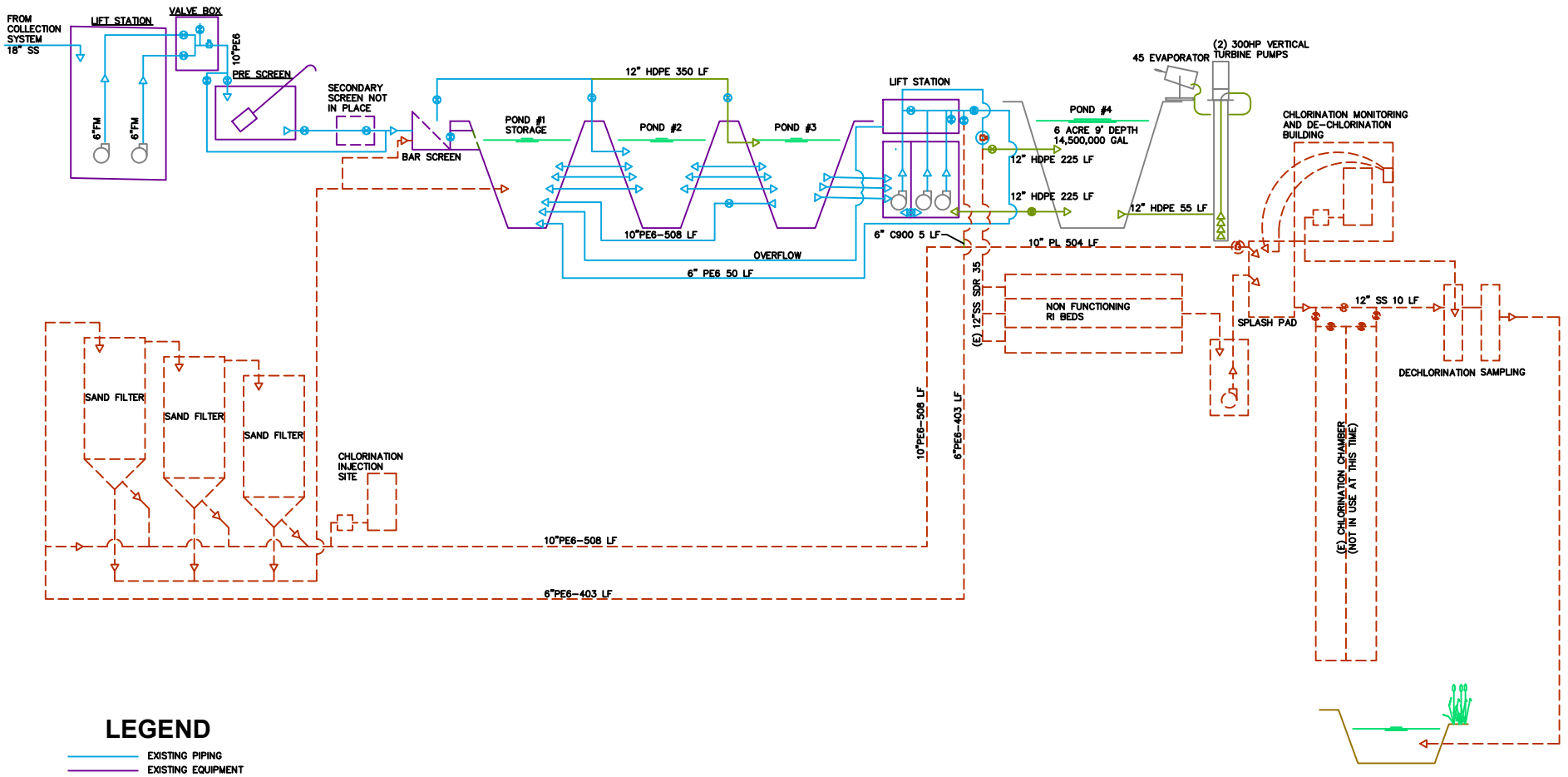
- EXISTING PIPING
- EXISTING EQUIPMENT
- UNUSED ITEMS
- EXISTING CONTROL AND CHLORINE
- WATER LINE
- NEW PIPING
- NEW EQUIPMENT
- NEW CONTROL AND CHLORINE

HECO ENGINEERS

WASTEWATER FACILITY FLOW DIAGRAM

PARMA WWTP ALTERNATIVE 2
Full Reuse System

DRAWN BY: SL	DRAWING DATE: MAY 2024	G:\CLIENTS\PA\PA24-04-17c\DRAWINGS\.dwg



LEGEND

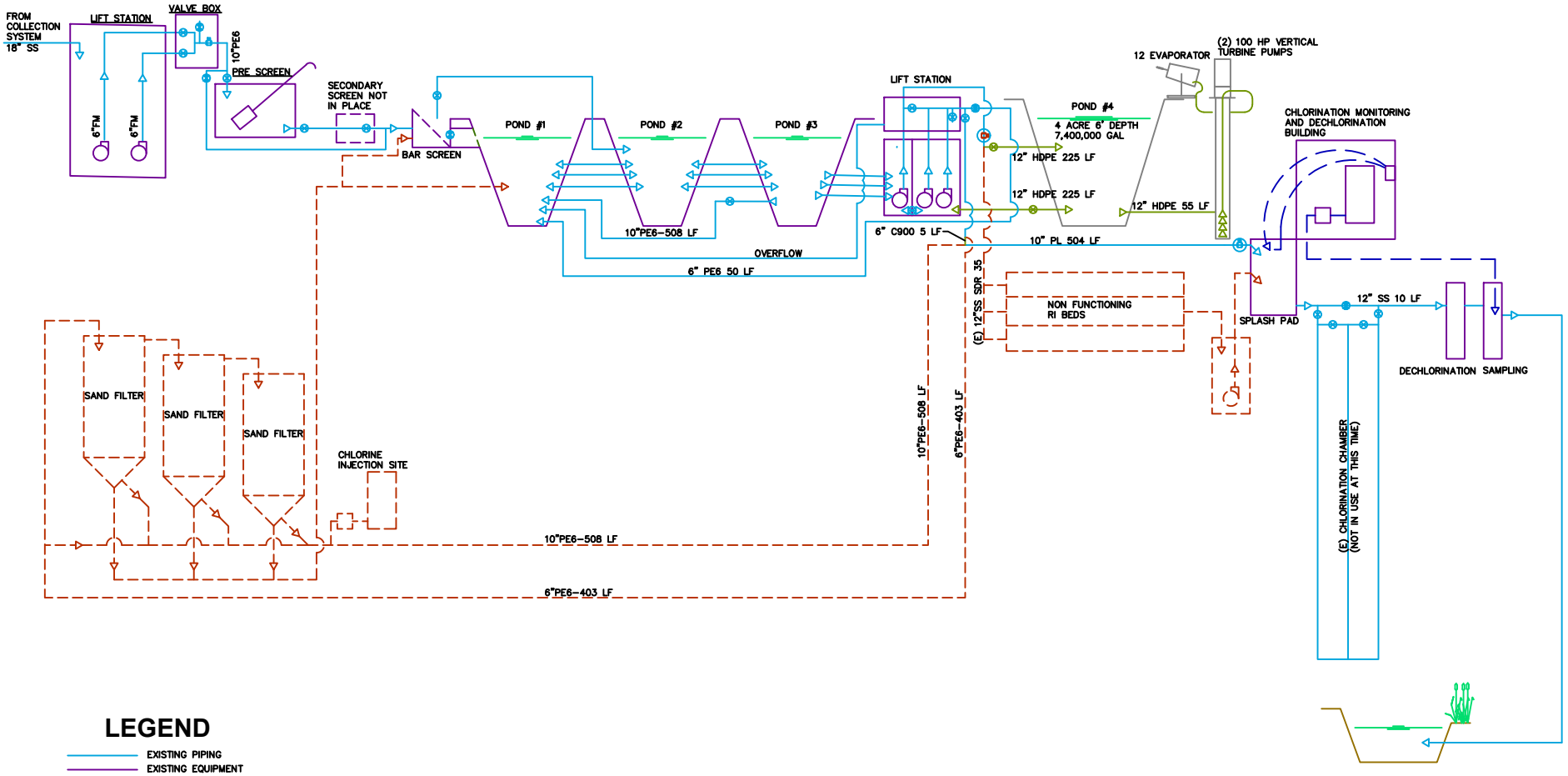
- EXISTING PIPING
- EXISTING EQUIPMENT
- UNUSED ITEMS
- EXISTING CONTROL AND CHLORINE
- WATER LINE
- NEW PIPING
- NEW EQUIPMENT
- NEW CONTROL AND CHLORINE

HECO ENGINEERS

WASTEWATER FACILITY FLOW DIAGRAM

PARMA WWTP ALTERNATIVE 3
Full Evaporative System

DRAWN BY: SL	DRAWING DATE: MAY 2024	G:\CLIENTS\PA\PA24-04-17c\DRAWINGS\.dwg



LEGEND

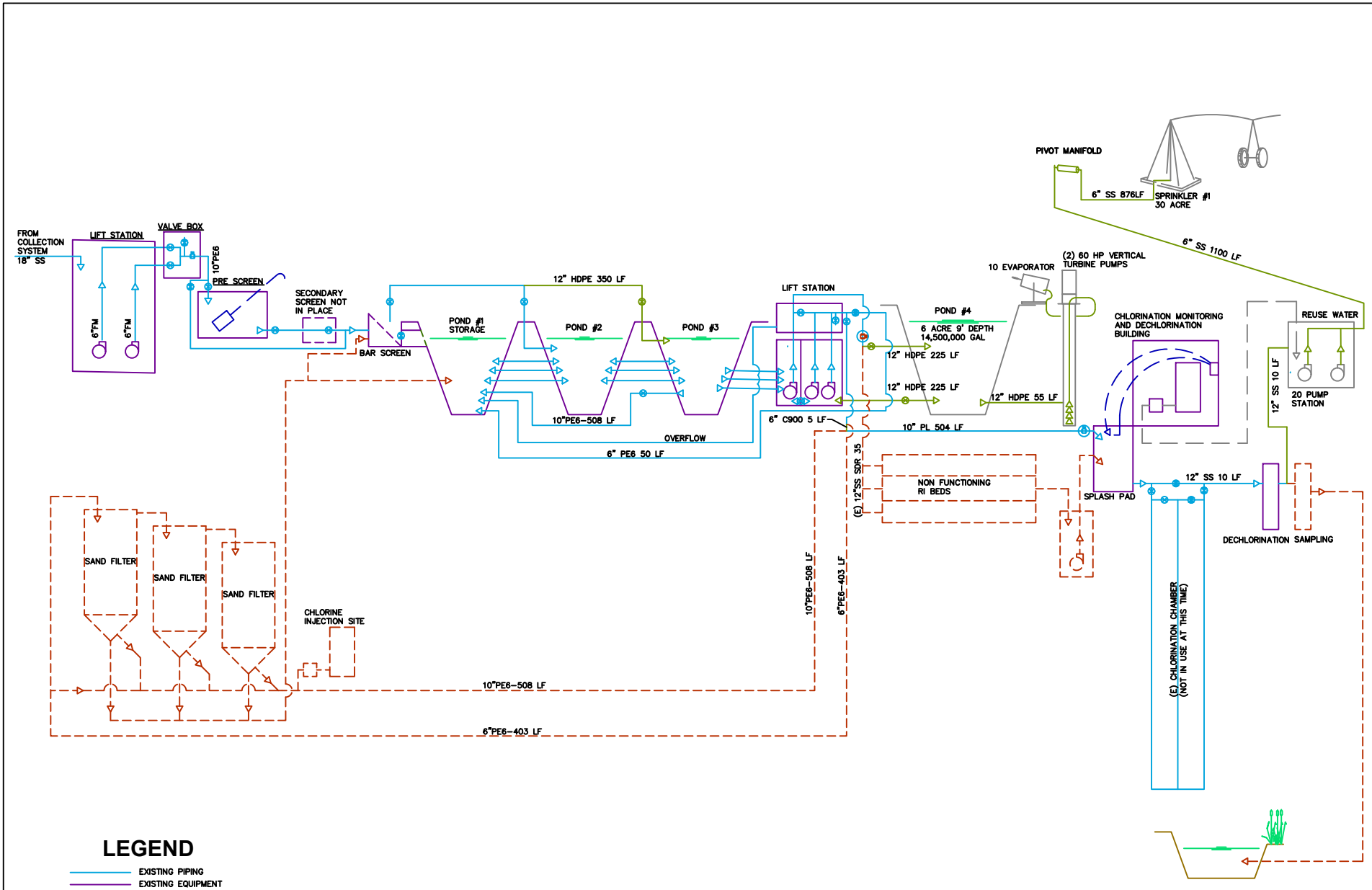
- EXISTING PIPING
- EXISTING EQUIPMENT
- UNUSED ITEMS
- EXISTING CONTROL AND CHLORINE
- WATER LINE
- NEW PIPING
- NEW EQUIPMENT
- NEW CONTROL AND CHLORINE

HECO ENGINEERS

WASTEWATER FACILITY FLOW DIAGRAM

PARMA WWTP ALTERNATIVE 4
Combined Discharge and Evaporative System

DRAWN BY: SL	DRAWING DATE: MAY 2024	G:\CLIENTS\PA\PA24-04-17c\DRAWINGS\.dwg



LEGEND

- EXISTING PIPING
- EXISTING EQUIPMENT
- UNUSED ITEMS
- EXISTING CONTROL AND CHLORINE
- WATER LINE
- NEW PIPING
- NEW EQUIPMENT
- NEW CONTROL AND CHLORINE

HECO ENGINEERS

WASTEWATER FACILITY FLOW DIAGRAM

PARMA WWTP ALTERNATIVE 5
Combined Reuse and Evaporative System

DRAWN BY: SL	DRAWING DATE: MAY 2024	G:\CLIENTS\PA\PA24-04-17c\DRAWINGS\.dwg

Exhibit A4.8

TRANSPORTATION MASTER PLAN

THE CITY OF PARMA

DATE:
August 13, 2024

LOCATION:
Parma, Idaho

PREPARED FOR:
City of Parma, Idaho

PREPARED BY:
NV5
690 S Industry Way, Suite 10
Meridian, ID 83642
208.342.5400

NV5
Delivering Solutions
Improving Lives

Adopted by City Council
August 13, 2024

Executive Summary

The City of Parma's Transportation Master Plan (TMP) was last adopted in November 2010. As a result of development and travel pattern shifts, an updated plan is needed. Consequently, infrastructure planning must align with these forecasts. The city requires a transportation system that accommodate safe, efficient, and interconnected network.

The TMP serves as a long-term blueprint for developing a citywide transportation network. It aligns with the City's land use plan, integrates with other municipal planning efforts, and complements planned regional transportation improvements.

The primary objectives of the Plan include:

- Evaluating the existing transportation network: assessing its capacity, safety, and deficiencies
- Assessing impacts of future growth: identifying how growth will affect transportation needs
- Proposing projects: addressing identified issues
- Exploring funding strategies: to support implementation
- Setting priorities for project phasing

The document is structured with dedicated chapters for each of these elements. The plan lays the foundation for a transportation network that accommodates vehicles, freight, and pedestrians, emphasizing safety and efficiency.

Acknowledgements

This plan was prepared by NV5, Inc. (Meridian, ID) through a grant provided by the Local Highway Technical Assistance Council (LHTAC). Some text used in this report is taken from the 2010 Transportation Master Plan.

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A. Introduction

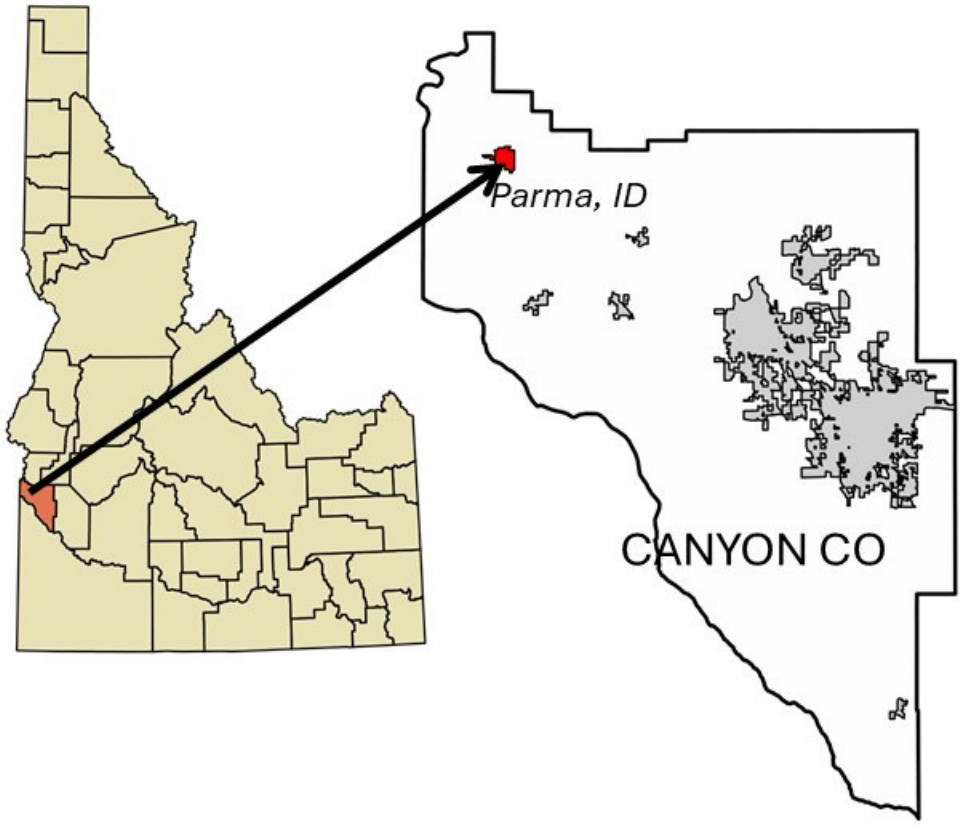
The City of Parma, named after Parma, Italy, is in Northwest Canyon County, Idaho. It is the fourth largest city in the county (behind Middleton, Caldwell, and Nampa) and the largest in the rural western portion. It is part of the Boise City–Nampa, Idaho Metropolitan Statistical Area. Figure 1 shows the location of the City of Parma in Idaho and Canyon County.

The City of Parma received funding from the Local Highway Technical Assistance Council (LHTAC) to develop a Transportation Master Plan (TMP). The TMP provides guidelines for future transportation project developments and programs, helps the city to plan and progress to achieve transportation goals and objectives furnished in the City's Comprehensive Plan, supports the development of a transportation Capital Improvement Plan (CIP), and fulfills an important and necessary element when the city applies for various State of Idaho and federal government funding applications. This is a technical update to the 2010 Transportation Plan to revise forecast conditions analyses based on prevailing traffic conditions and land use projections.

The city adopted its current Comprehensive Plan in 2004. As of the writing of this plan, the City was in the process of updating the Comprehensive Plan.

The Transportation Section of the Comprehensive Plan outlines specific recommendations for the city's advancement. These include conducting a transportation analysis study to assess existing traffic conditions and forecast future traffic scenarios. The plan also emphasizes the need for developing and adopting standards for road improvements, creating a roadway inventory, and implementing a pavement management program to prioritize projects and develop a comprehensive maintenance schedule. Additionally, it advocates for the creation of a Transportation Plan to identify critical projects and provide recommendations for future improvements.

Figure 1: The City of Parma, Area Location Map



This TMP is comprised of the following elements:

1. Introduction and Overview
2. Existing and Projected Demographics including land-uses
3. Evaluation of the Existing Transportation System, including traffic counts, safety and crash history, and modal assessment
4. Management & Maintenance systems
5. Future Transportation System and Needs, including future traffic projections, street standards and street classifications
6. Improvement Plan and completed projects
7. Funding
8. Conclusions and Recommendations

A.1. Purpose

A transportation master plan is a strategic document that outlines goals, strategies, and actions for developing and managing transportation systems in a specific area. It includes analysis of existing infrastructure, forecasts future needs, and recommends improvements to address challenges such as congestion, safety, and sustainability. Transportation plans ensure that in making judicious

choices in improvement, the local government has considered future growth and road usage patterns.

The TMP was developed for the following purposes:

- to provide guidance and recommendations to accomplish the goals furnished in the City's Comprehensive Plan,
- to identify traffic accident trends in roadways and intersections,
- to estimate traffic volume on roadways and thoroughfares,
- to develop a Capital Improvement Plan (CIP) prioritized based on the roadway condition within the study area; and,
- to fulfill a crucial element in various funding applications, which will ultimately result in improving the score (ranking) of these applications.

A.2. Scope

The Plan identifies the current conditions of the City streets, transportation structures, and future potential transportation needs and requirements. The action plan throughout the process is to prepare a complete inventory of the City's existing roadway facilities, including a city-wide base map.

The approaches to this Plan include:

1. Information and data gathering,
2. Organization and evaluation of data,
3. Presentation of the findings,
4. Recommendations, and
5. Report - Transportation Master Plan

A.3. Other Studies

Other studies identified and reviewed at the time of this report include:

- City of Parma Comprehensive Plan, 2004 (revised 2009)
- Communities in Motion 2050 (in progress), COMPASS
- Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System, US DOT, Federal Highway Administration
- Capital Improvement Plan and Development Impact Fee Study for Parma
- Traffic Impact Studies

A.4. Transportation Goals and Implementation

The Transportation Goal(s), Objectives, and Policies identified in the Comprehensive Plan are as follows:

A.4.1. Goal

Cooperate in the development of a balanced multi-model (all transportation) transportation system that enhances the area's land use, environmental, social, economic, and energy needs.

A.4.2. Objectives

- Require developers to provide sufficient space for off-street parking of both commercial and private vehicles. Designs of parking areas should provide for snow storage and adequate means of handling runoff.
- Promote ease of access in and through all portions of the city.
- Pedestrians and bicyclists should be accommodated with special facilities to keep them away from automobiles.
- Promote various modes of alternative transportation, which will reduce air pollution, noise, and fuel consumption and congestion.
- Provide adequate off-street parking and good traffic circulation in areas designated for light industrial use.
- Encourage the repair and/or installation of sidewalks throughout the city.
- As development occurs adequate street improvements should be made.

A.4.3. Policies

1. Restrict development of those areas where commercial activity now exists, and which provides good access to major transportation systems. This would minimize traffic conflicts and maintain smooth circulation.
2. Develop a street circulation master plan.
3. Prepare and maintain an operations maintenance program.
4. Develop turn lanes/pedestrians crossing on highway system.
5. Review, monitor, and analyze local and regional transportation system.
6. Encourage carpooling.
7. Follow the recommendations of the Parma Airport Master Plan.
8. Develop a sidewalk program.
9. All new streets and roads and those which are reconstructed should be designed and built in accordance with adopted standards. The costs of new streets and roads should be borne by developers.

B. Demographics

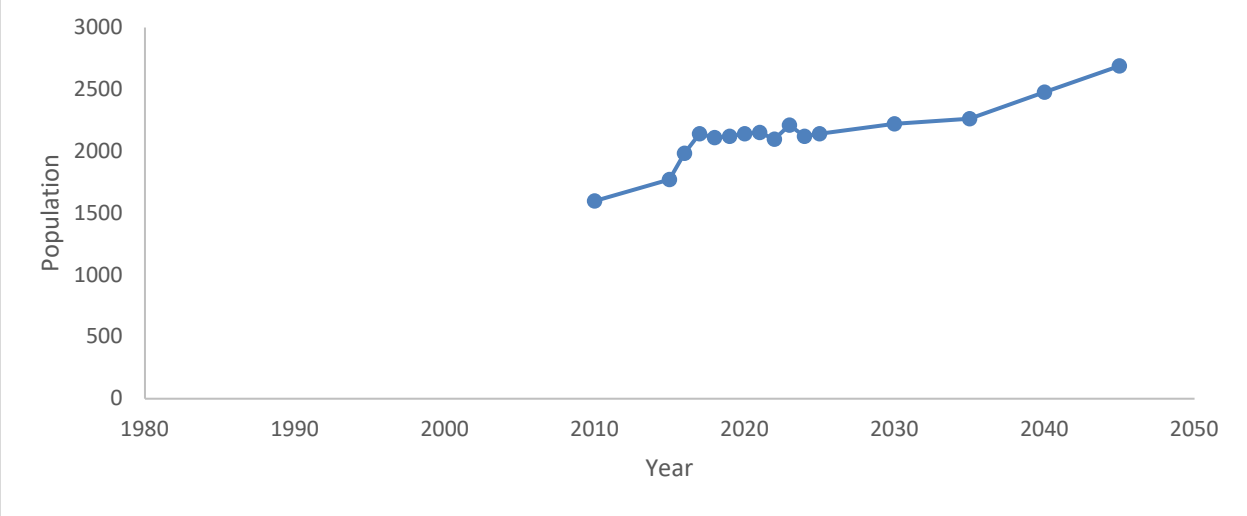
Demographic data for the City of Parma was collected from various sources, including the Idaho Department of Commerce web page, U.S. Census Bureau records, and the City of Parma's Comprehensive Plan. The information below summarizes historical and projected population trends.

B.1. Historical/ Projected Population

Parma Historical Population Trends

- From 2000 to 2024, the overall population trend shows a gradual increase despite periods of decline. Overall, the population increased by 449 people, reflecting an average annual growth rate of approximately 1.24%.
- Significant growth was observed in 2010 and 2021, while notable declines occurred in 2016 , 2020 , and 2022.
- Despite some years of decline, the general trend is an increase, with an average annual change reflecting modest growth.
- The data for 2022 shows a recovery trend from the previous decline, with 2023 and 2024 continuing this growth.
- Figure 2 shows the historic and future trends in population.

Figure 2: City of Parma Population, Historical Population, and Projected Population



Source: Population_estimates_2024.pdf (compassidaho.org)

Table 1: City of Parma Historical Census Population Data

Year	Population	Numerical Change	Change / Year (%)
1990	1597		
2000	1771	174	9.8
2010	1983	212	10.7
2015	2140	157	7.3
2016	2110	-30	-1.4
2017	2120	10	0.5
2018	2140	20	0.9
2019	2150	10	0.5
2020	2096	-54	-2.6
2021	2210	114	5.2
2022	2120	-90	-4.2
2023	2140	20	0.9
2024	2220	80	3.6

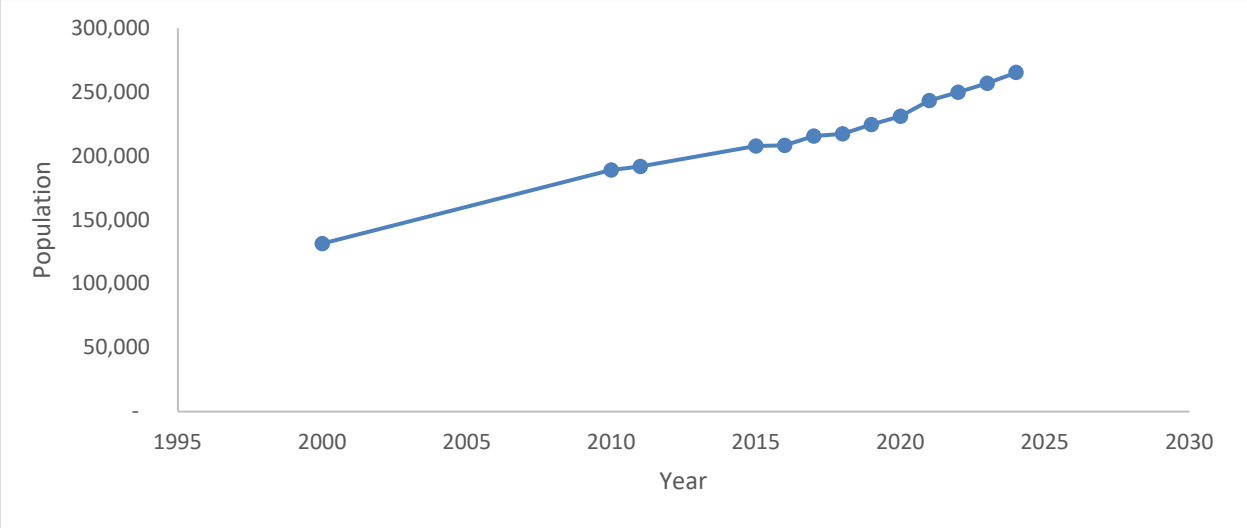
Source: Population_estimates_2024.pdf (compassidaho.org)

Canyon County Historical Population Trends

- Canyon County experienced a total growth of approximately 102% from 2000 to 2024, or about 4.25% per year.
- The largest increase occurred in 2010, with a rise of 57,472 people.
- The county's average annual change reflects robust growth, particularly in the early 2000s and recent years.

- Favorable economic conditions, development projects, and increased migration likely contributed to sustained population growth.

Figure 3: Canyon County Population, Historical Population, and Projected Population



Source: Population_estimates_2024.pdf (compassidaho.org)

Table 2: Canyon County Historical Census Population Data

Year	Population	Numerical Change	Change / Year (%)
1990	90,076		
2000	131,441	41,365	31.5
2010	188,913	57,472	30.4
2011	191,694	2,781	1.5
2015	207,790	16,096	7.7
2016	208,180	390	0.2
2017	215,430	7,250	3.4
2018	217,180	1,750	0.8
2019	224,540	7,360	3.3
2020	231,105	6,565	2.8
2021	243,380	12,275	5.0
2022	249,720	6,340	2.5
2023	256,940	7,220	2.8
2024	265,300	8,3680	3.2

Source: Population_estimates_2024.pdf (compassidaho.org)

While Canyon County population has doubled from 2000- 2024, Parma's city population growth during this period has remained almost constant.

Table 3: Population by Age for the City of Parma

Age	Population (2022)
under 5	137
5 to 9	172
10 to 14	172
15 to 19	122
20 to 24	78
25 to 34	206
35 to 44	271
45 to 54	258
55 to 59	45
60 to 64	79
65 to 74	246
75 to 84	100
85 and over	51
Total	**1937**

Source: US Census Bureau

B.2. Future Population Projection

Population projection depends on several variables and assumptions. Changing these variables will yield a range of possible population projections. The current figures (considering the variables remain constant) project the County population to be 359,180 by 2050, a fifty-four percent increase from 2020. In the next twenty-six years, Canyon County expects to add an estimated 350,820 people while the City of Parma may experience a 50% increase in population. This estimate is based on historical trends and likely residential development opportunities. There are several factors that will affect this rate. A few of these factors are local commerce, freight traffic and commuting work force into the Boise-Nampa-Caldwell areas.

Table 4: Future Population Projections for the City of Parma

Year	Future Population of Parma
2025	2,263
2030	2,476
2035	2,690
2040	2,903
2045	3,116
2050	3,330

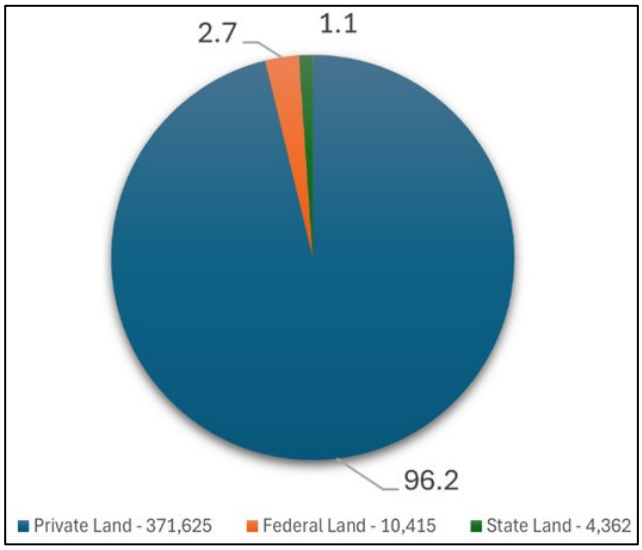
Source: Population_estimates_2024.pdf (compassidaho.org)

B.3. Land Use

Land Ownership in Canyon County

Canyon County is comprised of 386,366 acres. Approximately 371,625 acres or 96.2 percent of these acres are privately owned, 10,415 acres or 2.70 percent are federally owned, 4,362 acres or 1.10 percent are state owned.

Figure 4: Canyon County Land Ownership by Acres



Source: Canyon County Comprehensive Plan 2030

Existing Land Use Patterns in Parma

Land use in Parma include residential, commercial, industrial, agriculture and public uses. The developed area outside of the city occupies approximately 4% (Parma Comprehensive plan, 2004) of the impact area. Most of the land outside the city limits is used for agricultural purposes.

B.4. Future Development Potential

The City of Parma is set for some future expansion. Key strategic priorities include endorsing state and county initiatives aimed at fostering agricultural growth, recognizing agriculture's pivotal role in the regional economy.

Additionally, the city seeks to cultivate diverse residential zones that cater to a wide spectrum of housing requirements, fostering inclusive neighborhoods. To promote economic diversification, Parma intends to attract, retain, and expand a diverse array of businesses and industries, thereby ensuring abundant employment opportunities and a robust tax base. Commercial development will be strategically concentrated along the US 95 highway corridor and downtown districts, creating accessible and dynamic commercial centers.

B.5. Additional Data

Based on the 2022 population data, vehicle ownership is highest among middle-aged adults (35-54 years) with 529 individuals, as they are in their peak working and family years. Young adults (20-34 years), numbering 284, also have significant ownership due to work and family needs. The youngest group (under 20 years) with 603 individuals, and seniors (65 and older) with 397, have the lowest ownership rates due to legal driving age restrictions, financial constraints, retirement, and health issues. Thus, vehicle ownership is predominantly driven by the middle-aged and young adult demographics.

Vehicle Ownership Pattern by Household in Parma

Based on data from 707 households of Parma, only 12 households (1.7%) do not own any vehicles. A significant portion, 219 households (31%), own one vehicle, while 307 households (43.4%) have two vehicles, making it the most common ownership level. Additionally, 98 households (13.9%) own three vehicles, 51 households (7.2%) have four vehicles, and 20 households (2.8%) possess five or more vehicles. Overall, 98.3% of households own at least one vehicle, indicating a high dependence on personal vehicles for transportation.

Table 5: Vehicle Ownership Pattern in the City of Parma

Vehicles Available per household	Units
None	12
1 Vehicle	219
2 Vehicles	307
3 Vehicles	98
4 Vehicles	51
5 or more Vehicles	20
Total	**707**

Source: US Census Bureau

C. Existing Transportation System

C.1. General

The City of Parma, situated in the northwestern portion of Canyon County, Idaho, is approximately 38 miles northwest of Boise. The main thoroughfare in Parma is ID-95 (Grove Street) and runs through the center of the city in the northeast/ northwest direction. The other major streets serving the city are Roswell Boulevard, McConnell Avenue, Fourth Street, and Parma Road.

Grove Street, a Principal Arterial, traverses through the city and connects US 20/26 to the City of Notus, approximately 9 miles away to the southeast. On the northwest portion of Grove Street, US-20 W / US-26 W heads north and turns into Hwy 95 towards the Nyssa / Apple Valley area, approximately 8 miles away. At the northwestern portion of Grove Street, ID-18 / N. Roswell Boulevard goes south/ southwest toward the City of Roswell and Adrian.

Other significant roads that impact Parma include 20/26 east of Caldwell and I-84, 13 miles north on Hwy 95 to the junction of I-84 in Fruitland.

Several businesses are located along Grove Street with residential and church properties located primarily north of Grove Street. The Union Pacific Railroad (formerly the Oregon Short Line Railroad) is located south and parallel to Main Street which is one block south of Grove Street.

<u>Evolution of the City of Parma's Road System and Current Transportation System</u>

Canyon County is divided into four highway districts that include: Nampa Highway District No. 1, Notus-Parma Highway District No. 2, Golden Gate Highway District No 3, and Canyon Highway District No. 4. Most, but not all, of the cities within each highway district has a public works department that maintain their roadways.

The City of Parma’s Road system is overseen by the City’s Public Works Department. Regular surveillance informs maintenance decisions, and repairs are promptly carried out as needed. The

city maintains its own equipment, with capital expenses limited to raw materials. Roads beyond the city limits fall under the purview of the Notus-Parma Highway District, including shared maintenance areas like Parma and Walker Roads.

All intersections within the city limits are either YIELD or STOP controlled. Local roads maintain speed limits of 25 mph to 20 mph near school areas. On the state highway within the city, the speed limit is primarily 35 mph. Crosswalks are strategically placed throughout downtown and near schools, with RRFBs (Rectangular Rapid Flashing Beacons) enhancing safety in specific downtown sections.

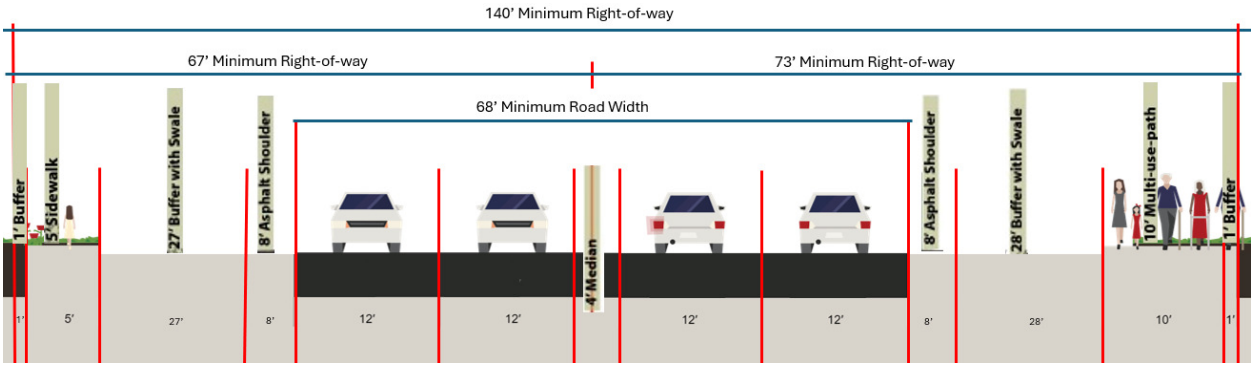
C.2. Roadway Functional Classification

Road classification is an important element in the planning and funding of construction projects. The Rural Functional Classification System is a method of classifying streets and highways based on the role of the street or highway in the transportation system. The classifications are in accordance with the American Association of State Highway Transportation Officials (AASHTO) Functional Classification of streets and highways. Federal-aid (federal money) for capital improvements is available to arterials (principal and minor) and major collectors through the STP Rural program. Federal-aid funds are not available to minor collectors and "local roads"; however, the Local Highway Technical Advisory Council (LHTAC) has made available Investment Funds for improvements on these roads.

Road classification is important in that the classification determines the typical section standard, access control, speed limits, right-of-way widths, and setback requirements. Mobility, high level of service (LOS), and restricted access are characteristic of arterials while high accessibility and safety are characteristic of local roads. A further breakdown of road classifications is as follows:

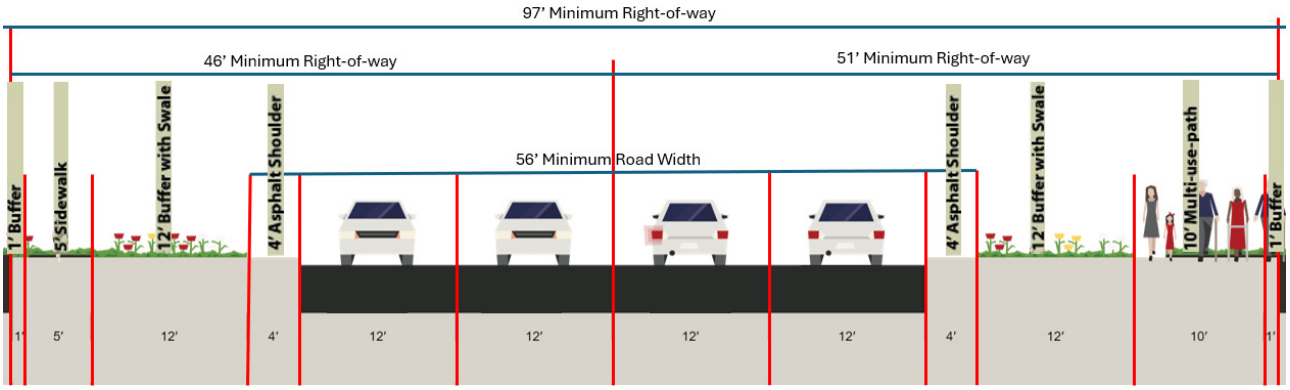
Principal Arterials comprise the Interstate system and most rural freeways, include multi-lane roads and two-lane roads, and carry large volumes of traffic over longer- distance at high speeds and major traffic flows between population centers and important activity locations: including state-wide or interstate travel. Principal Arterials usually have limited access.

Figure 5: Typical Principal Arterial Roadway Cross Section



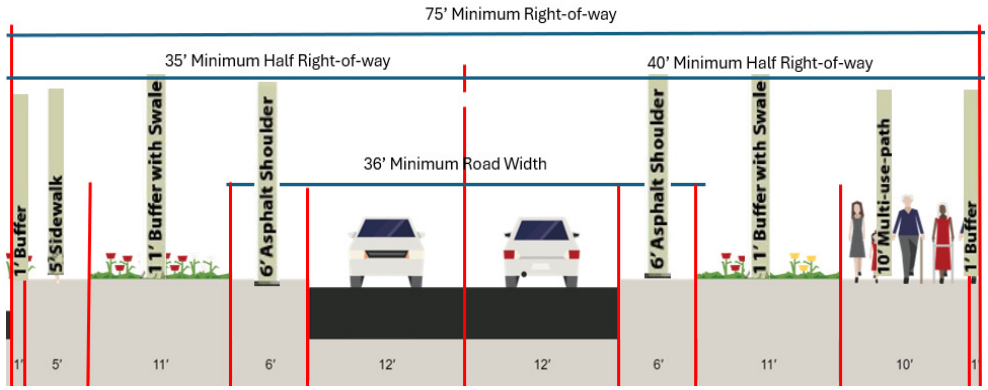
Minor Arterials provide direct transportation links between cities and major traffic generators and include multi-lane and two-lane roads. These arterials allow access in more frequent intervals and include connection between collectors and principal arterials. Minor arterials are like principal arterials with the exception that the destination generators usually are within the state.

Figure 6: Typical Minor Arterial Roadway Cross Section



Major Collectors include aspects of both arterials and local roads and serve as a connection between key transportation routes, largely within the county. Serving moderate traffic volumes there may be few discernible differences between collectors and local roads. Collectors should reflect their function as a collector and not be developed as a continuous access road. In many rural locations farm to market routes is identified as collectors.

Figure 7: Typical Major Collector Roadway Cross Section

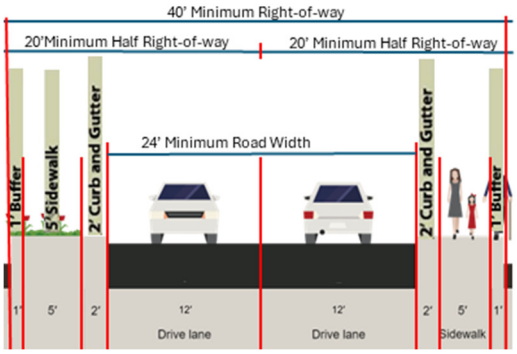


Minor Collectors link local streets with major collectors or arterials. Several minor collectors connect rural areas of a county with the arterials. All other local roads within a county are intended to service short-distance local traffic in developed areas.

Figure 8: Typical Minor Collector Roadway Cross Section

Local Roads serve primarily to provide access to farms, residences, businesses, or other abutting properties. Design criteria are more economical than arterials and collectors. Access is usually unlimited with relatively low traffic volumes and speed. Local Roads are essential for traffic mobility, safety, and economics.

Figure 9: Typical Local Roadway Cross Section



Local roads with low traffic volumes, like many roads within the City of Parma area (with an Average Daily Traffic, ADT, ≤ 400), are often categorized into subclasses based on the "Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT ≤ 400)" published by AASHTO. These subclasses include:

Major Access Roads: Designed to provide access to abutting properties as well as through an area or between higher-type roadways.

Minor Access Roads: Primarily serve access to abutting properties, often with no through route (dead-end roads).

Industrial/Commercial Access Roads: Provide access from higher-type roadways into industrial/commercial areas, frequently used by trucks and other heavy vehicles.

Agricultural Access Roads: Provide access to adjacent farming or ranching operations, often used by large and slow-moving farm equipment.

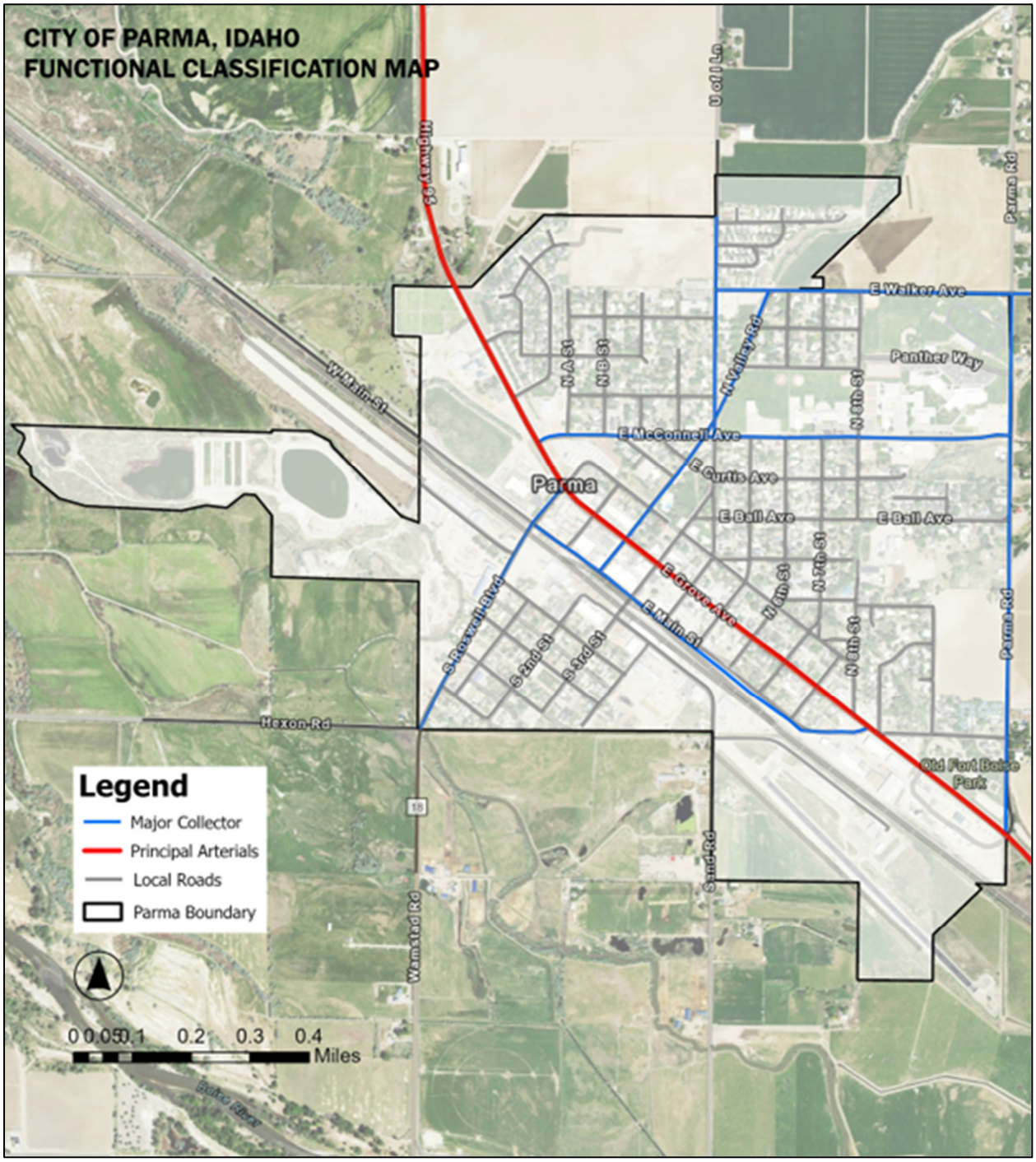
Recreational and Scenic Roads: Serve special land use areas, including campsites, boat ramps, and other recreational facilities.

Resource Recovery Roads: Facilitate the recovery of natural resources, including mining and logging operations, typically serving large vehicles operated by professional drivers.

Private Roads: These are not part of a Local Highway Jurisdiction's Street system road network. When a private road is within a subdivision, it is excluded from a jurisdiction's authority. Private roads are owned, constructed, repaired, and maintained by homeowners' associations or landowners who use them. These roads provide access from public roads to residences and, to a lesser extent, commercial, industrial, and other uses.

Local highway jurisdictions have adopted a policy to count traffic on collector roads annually and all other roads every five years. Rural Functional Classification maps are available from the Idaho Transportation Department at http://gis.itd.idaho.gov/functionalclass/ The City and County can submit resolutions to the state for amendments to the current road classification. If accepted, these changes will be reflected on the State Classification Map. Historically, the State Classification Maps are updated every five years.

Figure 10: Functional Classification Map



There are two state-maintained highway routes through the City of Parma. These two highways are briefly described below.

Grove Street (US-20 W / US-26 W north and Highway 95) and US-20 (toward Notus) is a principal arterial and major thoroughfare for residents and non-resident travelers and serves southeast and

northwest-bound traffic. Many local roads connect with Grove Street through the City. Grove Street serves a high volume of traffic including large volumes of agricultural traffic transporting products to local processing businesses within the city and to locations outside the city.

ID-18 / N. Roswell Boulevard is classified as a major collector and serves as a major thoroughfare for residents and non-resident travelers and serves traffic south toward the City of Roswell and Adrian. Roads within the City of Parma and Area of Impact that are classified are shown in Table 6.

Table 6: City of Parma, Street Functional Classification

Roadway	LHTAC ID	LHTAC Road Classification	COMPASS ID	COMPASS Road Classification
Hexon Road	00293A0H000	Major Collector	215	Collector
Hwy 95	01540AUS095	Principal Arterial	958	Principal Arterial
Main St	11986A0H000	Major Collector	991	Collector
McConnell Ave	37514A0H000	Major Collector	501	Collector
N 2nd St	13564A0H000	Major Collector	766	Collector
N 4th St	11984A0H000	Major Collector	1532	Collector
N Valley St	13564A0H000	Major Collector	1277	Collector
Parma Road	11985A0H000	Major Collector	1388	Collector
Roswell St / ID-18	00283A0H000	Major Collector	302	Collector
U Of I	11984A0H000	Major Collector	127	Collector
Walker Road	00273A0H000	Major Collector	810	Collector

Source: Local Highway Technical Assistance Council (LHTAC); Community Planning Association of Southeast Idaho (COMPASS)

C.3. Recommended Changes to Classification

Two roadways have been identified as significant local roads that should be reclassified as Major Collectors (or Collectors). The two streets are:

- E Bates Street, from Roswell Avenue to N 8th Street
- E Ball Avenue, from 3rd Street to Parma Road

E Bates Street runs in parallel to Hwy 95 in the same way Main Street does and is alternative to Hwy 95. Similarly, E Ball Avenue parallels McConnell Avenue and collects traffic from several north/south local roads. The City may apply to the Local Highway Technical Advisory Council to redesignate these roads in the State's master road classification system.

C.4. Level of Service Criteria

Traffic volume information was utilized to assess the capacity and level of service (LOS) of roads in the surveyed region. As defined by the Highway Capacity Manual, system capacity denotes "the highest anticipated rate of vehicle movement through a particular point or continuous section of a lane or road within a specific timeframe under existing traffic, road, and control circumstances." Presently, within the study vicinity of Parma, operations are above a satisfactory threshold owing to minimal congestion and low traffic levels.

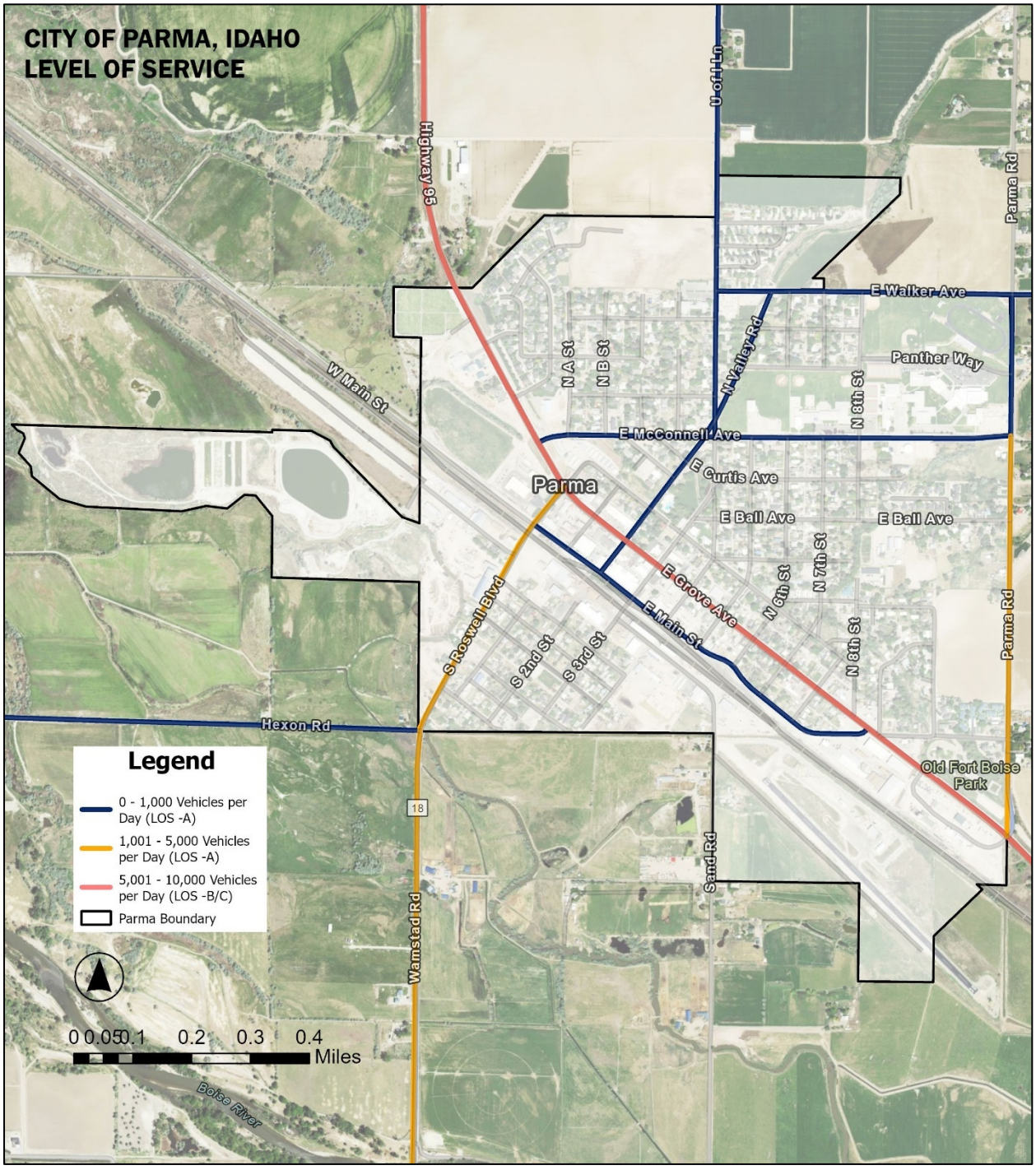
LOS is a letter-based designation that describes different operating conditions on a roadway. The Highway Capacity Manual defines LOS as "a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers." There are six levels of service, labeled A through F, with LOS A indicating the best operating conditions and LOS F indicating the worst. LOS thresholds for City of Parma were established using the Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System, US DOT, Federal Highway Administration Handbook. The US DOT criteria specify LOS for rural, uninterrupted flow, single-lane roadways. Roads within the city maintain LOS ratings ranging from A to C depicted in Figure 11.

Table 7: LOS Service Criteria

# of Lanes	Median	Average Daily Traffic (Both Directions)				
		LOS A	LOS B	LOS C	LOS D	LOS E
1	Undivided	< 4,600	4,600 - 8,200	8,200 - 14,000	14,000 - 29,800	> 28,500

Source: US DOT, Federal Highway Administration Handbook

Figure 11: Level of Service Map



C.5. Existing Traffic Counts

Traffic counts provide data used for the evaluation of the level of service (LOS) based on capacity. Future traffic volume projections and LOS based on population growth provide the City of Parma decision-makers information to plan for future needs.

Table 8: City of Parma Traffic Count Summary

Street Name	DHV	AADT
4th St @ Walker Rd to Trailer Park Entrance	95	680
McConnell Ave to Walker Rd	91	650
E McConnell Ave to Walker Rd	10	80
Walker Rd @ 4th St to Shelton Rd	42	350
E McConnell Ave to Walker Rd	78	560
W Grove Ave (Us-95) to Parma Rd	91	650
E Grove Ave (Us-95) to E McConnell St	154	1100
E Main St to E Grove Ave (Us-95)	120	860
Parma Rd @Grove (Us-95) to E McConnell Ave	140	1000
US-20 to N Roswell Blvd	70	500

DHV: Design High Volume, AADT: Average Annual Daily Traffic

Source: AADT 1999 - Present (arcgis.com), Idaho Department of Transportation

C.6. Safety - Crash Data

Crash data (accidents) was obtained for roads for the City of Parma from the Idaho Transportation Department's safety Dashboard website. Crash data received from ITD Highway Safety Division is summarized below in Table 9.

Table 9: Total Crashes by Year 2018-2022

Year	Total Crashes	Injury Crash	Fatal Crash
2018	5	0	1
2019	0	0	0
2020	4	1	0
2021	8	0	0
2022	5	2	0

Source: Idaho Department of Transportation

The locations of the highest accidents are identified in Table 10. All crashes between 2018 and 2022 are shown in Figure 12. Safety considerations should be given to high accident locations. Intersection parameters and traffic operation control should be reviewed in these areas. Funding grants for safety concerns are available through application.

Table 10: Intersection Crashes 2018 - 2022

Intersection	2018-2022		
	Property Damage Only	Injury Crash	Fatal Crash
E Grove Ave / N 2nd St	1		
E Grove Ave / N 3rd St	1		
E Grove Ave / N 5th St	1		
E Grove Ave / Stockton Rd / N 9th St	1		1
E Main St / N 3rd St	1		
E McConnell Ave / N 2nd St	1		
Parma Rd / E McConnell Ave	1		
S Roswell Blvd / Hexon Rd	1		
W Grove St / E McConnell Ave	1		
W Grove St / N Roswell Blvd	1	1	
TOTAL	**10**	**1**	**1**

Source: Idaho Department of Transportation

C.7. Intersection Traffic Counts and Analysis

The traffic count data was collected from studies conducted during various subdivision development studies. Below are the traffic counts recorded at the following intersections:

- 4th St &Walker Rd Intersections
- Parma Rd & Walker Rd
- 3rd St & Grove Ave (US 26)
- Valley Rd & Walker Rd

At the multiple-intersection location near McConnell Avenue, traffic counts were conducted during peak hours. The morning peak hours were from 7:00 a.m. to 9:00 a.m., and the afternoon peak hours were from 2:00 p.m. to 5:00 p.m. These times were identified as peak hour traffic times at this multiple-intersection location due to the proximity of McConnell Avenue to the Parma Elementary School, Middle School, and Senior High School. All schools are all located on McConnell Avenue. Table below summarizes the AM and PM peak turning movement volumes on each approach at the four intersections that were studied.

Figure 12: Crash Locations - 2019-2022

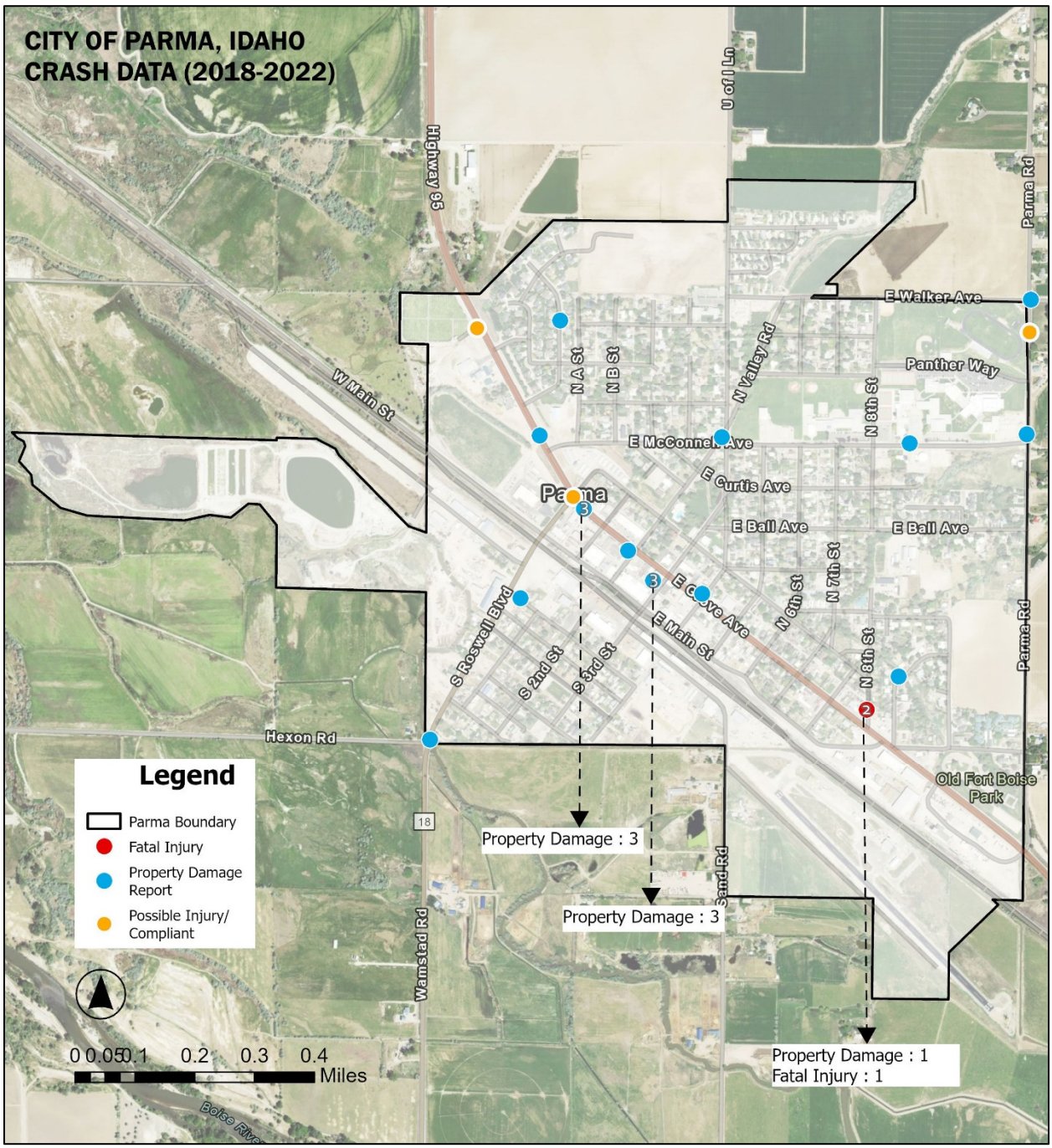


Table 11: Peak Hour Traffic Counts at Select Intersections

Intersection		East Bound			West Bound			North Bound			South Bound		
Parma Rd & Walker Rd	Lanes	LT	THR	RT	LT	THR	RT	LT	THR	RT	LT	THR	RT
	AM peak hour	8	8	16	16	16	1	18	28	11	3	60	26
	PM peak hour	9	8	8	5	13	1	11	29	11	1	18	10
Total		17	16	24	21	29	2	29	57	22	4	78	36
Intersection		East Bound			West Bound			North Bound			South Bound		
3rd St & Grove Ave (US 26)	Lanes	LT	THR	RT	LT	THR	RT	LT	THR	RT	LT	THR	RT
	AM peak hour	0	0	0	18	7	17	7	256	5	30	298	11
	PM peak hour	0	0	0	9	4	18	6	370	14	23	394	13
Total		0	0	0	27	11	35	13	626	19	53	692	24
Intersection		East Bound			West Bound			North Bound			South Bound		
Valley Rd & Walker Rd	Lanes	LT	THR	RT	LT	THR	RT	LT	THR	RT	LT	THR	RT
	AM peak hour	0	23	1	20	24	0	0	0	7	0	0	0
	PM peak hour	0	0	1	14	21	0	0	0	11	0	0	0
Total		0	23	2	34	45	0	0	0	18	0	0	0
Intersection		East Bound			West Bound			North Bound			South Bound		
4th St & Walker Rd	Lanes	LT	THR	RT	LT	THR	RT	LT	THR	RT	LT	THR	RT
	AM peak hour	0	0	0	19	0	6	0	5	13	7	15	0
	PM peak hour	0	0	0	13	0	7	1	12	2	0	10	0
Total		0	0	0	32	0	13	1	17	15	7	25	0

Source: Traffic Impact Study, Coopers Crossing, CR Engineering Inc.

The data presented in Table 12 summarizes total traffic counts at four intersections in 15-minute increments, showing that 3rd St & Grove Ave (US 26) has the highest traffic volume with 4260 vehicles, followed by Parma Rd & Walker Rd with 743 vehicles, and both 4th St & Walker Rd Intersections and Valley Rd & Walker Rd with around 280 vehicles each. Peak traffic occurs at 3rd St & Grove Ave (US 26) throughout the day, especially around 4:30 PM, while Parma Rd & Walker Rd experiences its highest counts at 7:30 AM. Analyzing the data, this plan recommends prioritizing traffic management strategies at 3rd St & Grove Ave (US 26), which is a major route with significantly higher traffic volumes, whereas the other intersections have considerably lower traffic volumes and require less intensive management.

Table 12: Traffic Count at Select Intersections, 15-minute Intervals

Total traffic Counts of the Intersections Summarized into 15 Minute Increments				
Time	4th St &Walker Rd Intersections	Parma Rd & Walker Rd	3rd St & Grove Ave (US 26)	Valley Rd & Walker Rd
7:00 AM	6	10	146	5
7:15 AM	9	54	141	15
7:30 AM	29	90	184	31
7:45 AM	21	50	178	23
8:00 AM	6	17	133	6
8:15 AM	2	14	132	4
8:30 AM	20	19	124	19
8:45 AM	9	15	153	7
2:00 PM	8	8	147	7
2:15 PM	7	24	146	3
2:30 PM	11	17	160	7
2:45 PM	7	15	181	12
3:00 PM	7	27	188	8
3:15 PM	12	36	192	12
3:30 PM	19	48	195	19
3:45 PM	25	61	233	25
4:00 PM	12	33	205	6
4:15 PM	15	28	183	10
4:30 PM	6	37	229	6
4:45 PM	5	15	221	7
5:00 PM	9	26	192	8
5:15 PM	15	35	209	12
5:30 PM	11	29	217	10
5:45 PM	9	35	171	17
Total	280	743	4260	279

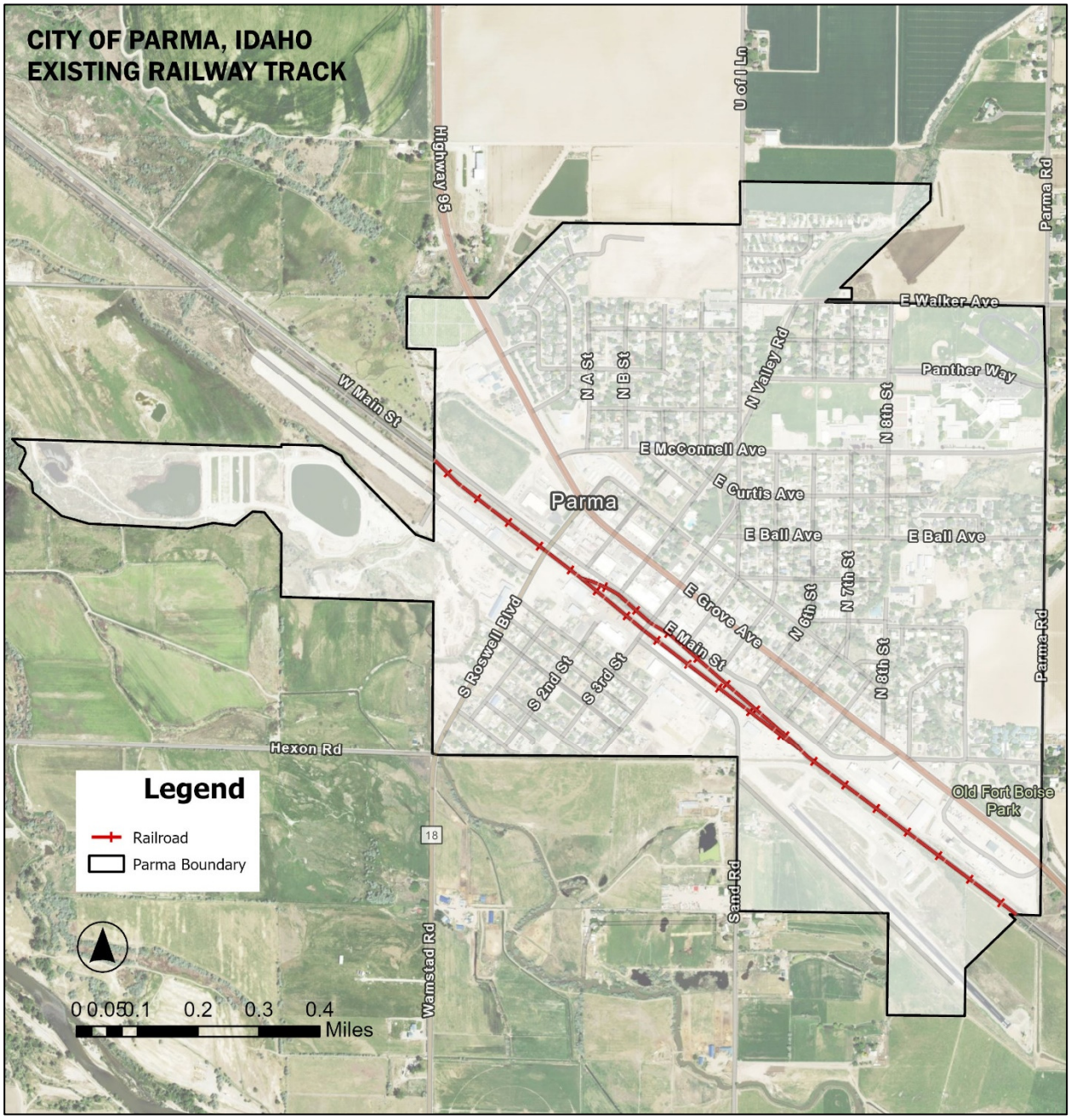
Source: Traffic Impact Study, Coopers Crossing, CR Engineering Inc.

C.8. Modal assessment

C.8.1. Railroad

The Union Pacific Railroad, previously known as the Oregon Short Line Railroad, runs through Parma, located just south and parallel to Main Street. On average, 21 trains traverse this route daily, equating to roughly one train every 1.14 hours, operating both day and night. According to the Union Pacific Railroad Company (UPRR), the primary commodities transported through Parma are agricultural products and raw materials. Notably, there are no passenger rail services in the city.

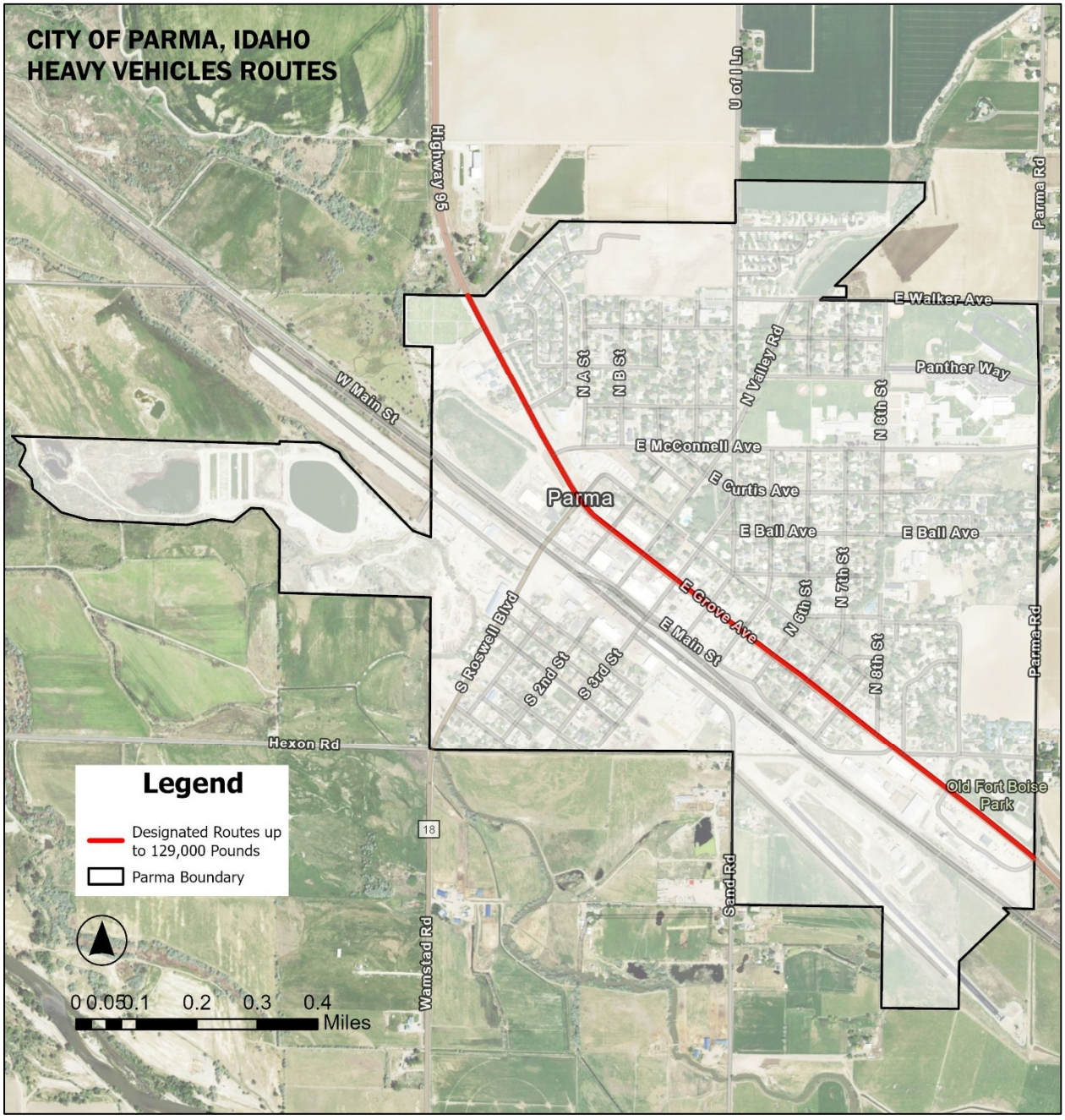
Figure 13: Existing Railway Routes



C.8.1. Truck Routes

Grove Street serves as the primary truck route, connecting to US 20 in the southeast and transitioning into Hwy 95 in the northwest. This route facilitates the transport of local produce to nearby and distant locations. Additional truck routes include Hwy 95 east of Parma and 20/26/95 from the overpass to Nyssa Junction.

Figure 14: Heavy Vehicle Designated Routes



C.8.2. Pathways

Pathways, sometimes referred to as multi-use paths or dedicated walkways, are not prevalent in Parma. There is one pathway that links E Locust Avenue with E McConnell Ave, between the elementary and middle schools. The existing pathway is shown in Figure 15.

Figure 15: Existing Pathways

C.8.1. Airport

The Parma Airport is a community-access airport situated on the southeast side of the city, south of the Union Pacific Railroad Main Line. It spans 29 acres and is owned by the City of Parma. This airport can handle private single-engine, light aircraft, and has one asphalt or bituminous concrete runway that is approximately 2,700 feet long and 50 feet wide, a taxiway, nine tie down areas, and four hangers. Parma was the first city in Idaho that installed a solar runway lighting system.

There is no fueling service or commercial passenger service available. There are several small private airfields or landing strips located throughout Canyon and Malheur Counties that support local air traffic. Boise Airport is the nearest airport offering commercial passenger service.

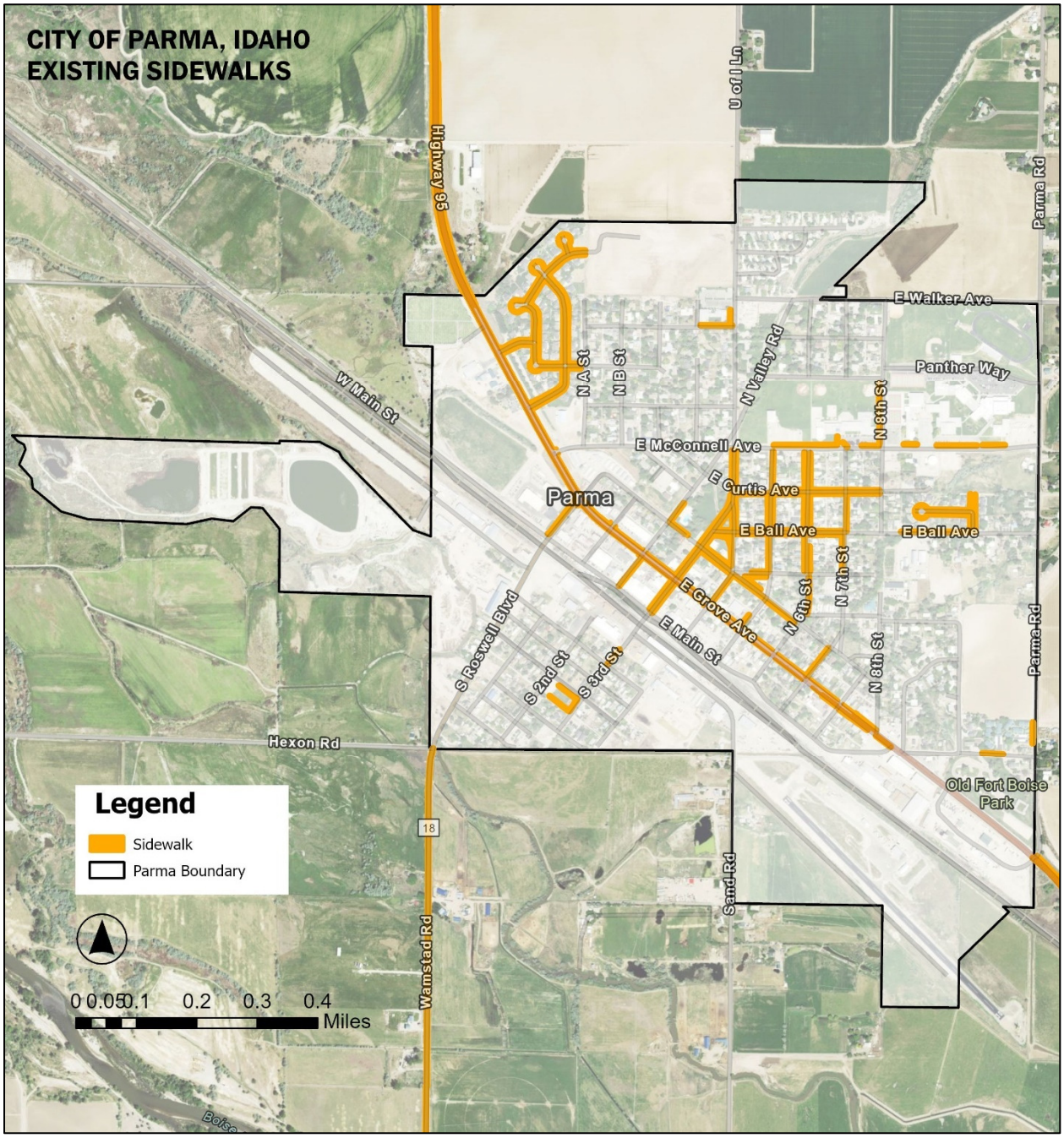
C.8.2. Sidewalks

Grove Avenue in the city features well-developed sidewalks along both sides of the road, except for the southeast section where sidewalks are missing. Additionally, the northern part of the city, north of Grove Avenue, has sidewalks along the eastern and middle sections, particularly near newer developments and the school area.

C.8.1. Complete Street Network Policy

In 2009, the Board of Directors of the Community Planning Association of Southwest Idaho (COMPASS) adopted the COMPASS Complete Streets Policy to articulate how each transportation user will be served on a roadway. A complete network is a planning approach that creates a connected system of different road types, each optimized for specific modes of transportation, rather than trying to accommodate all users on every street. Figure 17 shows the vision for streets in Parma.

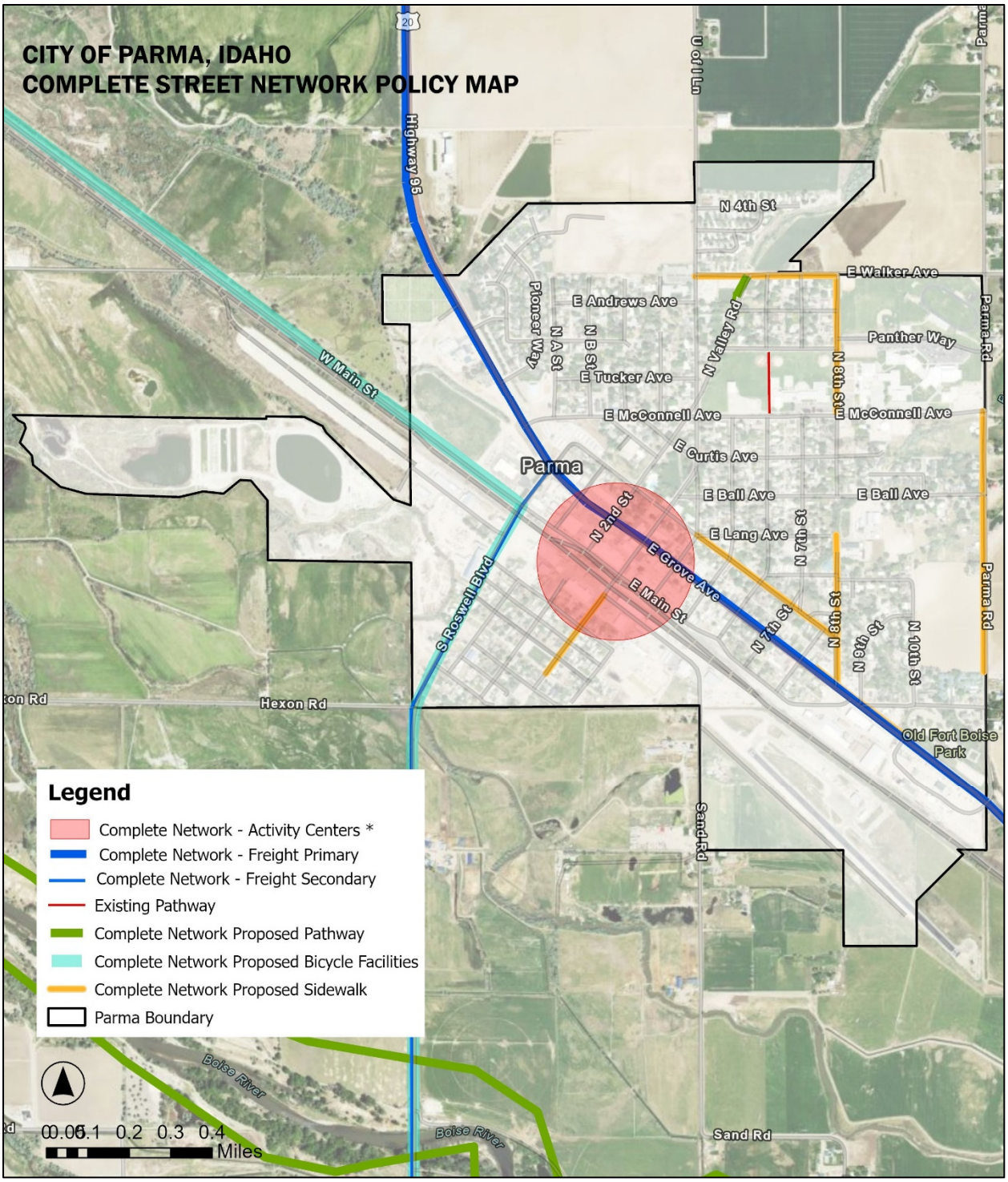
Figure 16: Existing Sidewalks



C.8.2. Public Transportation

There are no public transportation providers in Parma. There is a private bus for the Senior Center that operates a weekly shuttle.

Figure 17: Communities in Motion 2050 Vision for Complete Street Network



*Activity centers: Activity centers are dynamic hubs that support a wide range of land uses, including offices, residences, commercial, and civic areas like government buildings, plazas, and parks. These centers also host cultural activities and provide 24/7 living spaces.

D. Management & Maintenance

D.1. Pavement Management System (PMS)

In general, the sustainability of Parma's Road network can be defined by acceptable Levels of Service (LOS) based on the average annual daily traffic (AADT). Each square foot of road is assigned an annual maintenance cost. The balance between road square footage, available budget, and maintenance costs serves as a measure of the city's road sustainability. Implementing a surface management program minimizes maintenance costs based on historical studies.

Traditional Pavement Management Programs typically focus solely on material costs or capital expenditures within the budget. In Parma, the Public Works Department does not include equipment, personnel salaries, or fringe benefits in these costs, considering them as sunk costs.

Given that pavements naturally deteriorate over time due to traffic and environmental factors, it becomes crucial to determine when to resurface or apply other treatments to maintain the pavement at a serviceable level while minimizing operating costs. A well-designed pavement management system aids in making cost-effective decisions related to road maintenance.

The following is a brief description of the pavement management system, taken from the Pavement Management Guide, June 2024, published by the American Association of State Highway and Transportation Officials (AASHTO):

> *A pavement management system (PMS) is a collection of tools and techniques designed to help decision-makers identify the best strategies for delivering, assessing, and maintaining pavements in good condition over time.*

An effective PMS for the City of Parma can help to:

- Maintain up-to-date information of Parma's roads and traffic control devices,
- Employ cost-effective maintenance strategies,
- Allocate funds for road surface treatment and rehabilitation and make decisions on funding strategies, and
- Enhance the quality and performance of the city streets and roadways.

The City of Parma has limited personnel and resources to develop and maintain a PMS. In this report, a brief version of the PMS is introduced and suggested to the city called the Surface Management Plan (SMP). The SMP was developed based on the similar principles of an effective PMS. This SMP helps the city to maintain the streets in a timely manner, minimize the life cycle costs, and derive maximum long-term benefit from the capital expenditure.

D.2. Surface Management Plan

The Surface Management Plan (SMP) is a set of tools or methods that may assist decision- makers in finding cost-effective strategies for providing, evaluating, and maintaining road surfaces in a serviceable condition. Surface Management Planning principles are based on long-term budget benefits. The basic principles of the SMP consist of five (5) primary elements. These elements are flexible and may be tailored to the City's specific needs.

The following are the five elements in the SMP:

- Road Inventory and Database
- Road Surface Condition Assessment
- Project Prioritization and Maintenance Techniques
- Road Maintenance Recommendations
- Documentation

A detailed description of each of the SMP elements is provided in the following section.

D.2.1. Road Inventory and Database

A road inventory survey includes visual inspection of surface type (paved and unpaved), the condition of the surface type, width, drainage characteristics, location of traffic control devices like signposts, speed signs, and the location of culverts. This information is vital in developing budgets for operation and maintenance of roads.

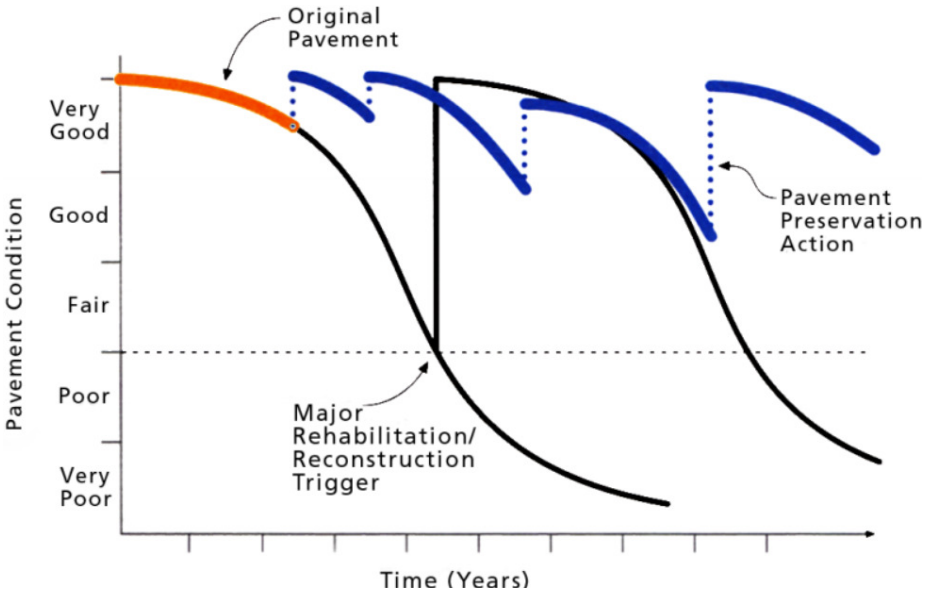
D.2.2. Road Surface Condition Assessment

Road surface conditions assessed from inventory surveys are based on severity and extent of the surface distress and disintegration. A numerical score or index between 0 and 20 is assigned to the road surface based on the visible road surface distress and is referred to as the Remaining Service Life (RSL). Numerical RSL indicates the remaining road surface life if no maintenance is preformed to extend the pavement life cycle.

Pavements tend to deteriorate slowly during the first few years after construction and more rapidly with age. Certain treatments and maintenance techniques rejuvenate the pavement life. It has been determined from historical studies that rejuvenating techniques performed at timely cycles are more cost-effective than reconstruction costs of un-maintained pavements.

Figure 18 shows the curves of pavement deterioration with age, without any maintenance, and with maintenance. The curves shown indicate pavement life and assumes adequate base. With proper construction and maintenance, the pavement life cycle may be extended, thus reducing capital expenditures for the reconstruction of road sections.

Figure 18: Pavement Condition vs Age, With and Without Maintenance



Source: https://www.nps.gov/subjects/transportation/pavement-preservation.htm:

The T2 Center of Idaho (known nationally as the Idaho Local Technical Assistance Program and housed at the LHTAC) recommends a pavement management strategy of maintaining good roads first, then improving poor roads as the budget allows. Human controlled factors that affect these cycles include poor or no drainage along the road shoulders, irrigation on roads, irrigation runoff from fields onto roads, and oversized loads. A combination of any of these factors will accelerate the deterioration of the road.

Irrigation water should be kept off roadways. Excess water used to saturate yards and / or gardens can sometimes soak the nearby road base. If excess water is allowed to saturate the road base, it can easily be destroyed in a single season. Once a road base has been compromised, the only repair is to rebuild. Reconstruction of the road costs the taxpayers money and lowers the level of service on other roads. Money that should have gone into maintenance has to be redirected for the untimely reconstruction of the road base.

D.2.3. Project Prioritization and Maintenance Techniques

The City of Parma's Public Works Department maintains all the roads (paved and graveled) within city boundary limits. For the paved roads, the city can identify the road sections needing repair or treatment and determine the probable cost and the source and date of funding. The goal of prioritization of projects is to provide the greatest benefit to the community for the available funds expended.

There are several project prioritization approaches. A simple ranking procedure ranks those road sections with the worst condition as the highest priority; however, this procedure is limited in the number of available parameters. Generally, pavements in poor condition require substantial repair or treatment, which requires significant funds to restore the roads to the desired level of serviceability. Therefore, prioritization of projects should be done based on good engineering judgment and net positive impact on the community and drivers.

The City of Parma prioritizes maintenance of paved roads based on visual surveillance of road conditions. Roads with more visible damage are repaired first, and subsequent priorities are assigned to other roads after the initial assessment.

Paved Roads

Maintenance activities on paved roads can be divided into four separate categories (as presented in The Asphalt Handbook, Asphalt Institute, 1989):

- **Routine maintenance** – the day-to-day work that is necessary to preserve a pavement. This may include crack sealing (annually), pothole patching (as soon as possible), and drainage maintenance (semi-annually). The routine maintenance technique includes maintenance work like pavement marking, upgrading traffic control devices (sign boards), re-grading borrows ditches or curb work for proper drainage.
- **Preventive maintenance** – work that is done to prevent deterioration of a pavement, thus reducing the need for more substantial maintenance work. This may include drainage (roadside) maintenance, and fog or chip seals, also referred to as seal coats, (every 4 to 7 years).
- **Major maintenance (rehabilitation)** – work that is needed to restore a pavement to an acceptable serviceability condition. It includes surface treatments, surface recycling, and overlays.
- **Reconstruction** – work includes reconstruction of sub-base, base, and asphalt surface to restore a pavement to its as-constructed condition. Visual observation of surface conditions will assist in the evaluation of base and subbase problems.

Gravel Road Maintenance Techniques

While most roads are paved in Parma, some sections of the city also have gravel roads, which are maintained by the Public Works Department (PWD). As per the PWD Staff, major roadways are repaired as and when deterioration occurs. Roads with negligible traffic require minimum maintenance and are repaired as need and budget allows. Table 12 lists six types of gravel road distresses and the respective maintenance techniques, which may be helpful to visualize maintenance techniques of gravel roads.

Table 13: Gravel Road Surface Distresses and Maintenance Technique

S. N	Gravel Surface Distress	Maintenance Technique
1	Improper cross-section	Reshaping or Re-grading depending on the severity of the distress
2	Inadequate roadside drainage	Re-grading ditches and cleaning culverts regularly
3	Corrugation	Reshaping or Balding depending on severity
4	Potholes	Blading or Reconstructing depending on severity
5	Rutting	Removing or stabilizing sub-grade and reconstruction
6	Loose Aggregate	Reshaping and adding aggregate fines to obtain proper gradation for stability

Items 1 and 2 listed in the above table are drainage issues that may compromise the structural integrity of the road base. Items 4 and 5 are indications of an inadequate base. Items 3 and 6 are related to surface management and daily traffic volumes.

When traffic volumes increase, it becomes cost-effective to pave gravel roads. A good indicator of requiring pavement is frequent grading of the road surface. Some agencies in the State use 200 Average Daily Traffic (ADT) as a guideline.

Placing pavement over inadequate base and/or poorly drained roads provides a temporary fix but may result in potholes and cracking within a few years. Good drainage will maximize the strength and life of the existing base. To accurately select the maintenance technique each improvement will have to be evaluated based on available budget, expected traffic volumes, and current needs.

D.2.4. Road Maintenance Recommendations

The following are recommendations and time frequency for maintenance techniques for gravel and paved roads.

- Debris and excess vegetation like grass and weeds should be removed from the bottom of ditches and culverts at the beginning of every fall season.
- Roadside drain ditches should be graded by removing excess silt and sand sediments and reestablishing longitudinal and side slopes at the beginning of every spring and fall seasons.
- Road cross slope and shoulder slopes should be inspected and graded as required and at a minimum of the beginning of spring and fall seasons. Seasonal roads should be inspected and graded as required.
- Culverts should be repaired and/or upgraded depending on flow demand and required capacity each fall season for storm water culverts and each spring for irrigation culverts. Bridges should be inspected regularly and repaired as required.

D.2.5. Documentation

Currently, the city lacks comprehensive records regarding road repair and maintenance, including essential details such as the costs of upkeep, the time required for repairs, and the specific techniques employed. This study recommends establishing and maintaining a detailed road surface inventory to facilitate future reference and ensure accurate documentation of all maintenance work performed. Maintaining such records would be beneficial for the city as it would enable better planning, budgeting, and management of road infrastructure, ultimately leading to more efficient and cost-effective maintenance practices.

E. Future Transportation System

E.1. Future Traffic Projection

This section of the TMP discusses the future transportation needs and the transportation system improvements required to meet the future demand in the City of Parma. The population of Parma showed an overall upward trend of 8.2% from 2000 to 2022, or about 0.35% per year. The recent trend in 2022 suggests a recovery from the previous decline. However, Parma's growth rate is modest compared to the substantial population boom in Canyon County. The future transportation demands of the city depend on the land use planning and the City's growth principles provided in the Comprehensive Plan.

It is necessary to determine the future traffic on key roadways to evaluate the capacity of the existing transportation facilities. The Idaho Department of Transportation has a record for present AADT and the growth in traffic volumes is forecasted using present data using linear regression.

Table 14: City of Parma Traffic Projections

Roadway	2018 Traffic Volumes	2019 Traffic Volumes	2020 Traffic Volumes	2021 Traffic Volumes	2022 Traffic Volumes	2024 Traffic Volumes by Linear Regress.	2034 Traffic Volumes by Linear Regress.	2044 Traffic Volumes by Linear Regress.	2054 Traffic Volumes by Linear Regress.
East McConnell Ave	650	650	640	720	700	740	910	1,080	1,250
N 2nd St	1,100	1,000	990	1,100	1,100	1,098	1,198	1,298	1,398
4th St	650	500	490	600	590	558	538	518	498
East Grove Ave	7,900	8,100	8,000	9,000	7,600	8,240	8,540	8,840	9,140
Parma Rd	1,000	1,000	990	1,100	1,100	1,158	1,458	1,758	2,058
East Main St	500	500	490	550	530	558	668	778	888

Source: AADT 1999 - Present (arcgis.com)

E.2. Vehicle Trip Projections

In the base year, vehicle trip totals and projections are determined by combining vehicle trip end factors, trip adjustment factors, and assumptions related to residential and nonresidential housing stock and floor area. Specifically, residential land uses account for 6,710 vehicle trips, while nonresidential land uses account for 3,195 vehicle trips (as shown in the table). Looking ahead to 2032, it is projected that daily vehicle trips will increase by 3,449, with most of the growth attributed to single-family (58%) and institutional (27%) development.

Table 15: City of Parma Trip Projections Based on Land Use

Development Type	Base Year 2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total Increase
Residential Trips												
Single Family	6,498	6,697	6,896	7,095	7,293	7,492	7,691	7,890	8,089	8,288	8,487	**1,989**
Multifamily	212	214	217	219	221	223	226	228	230	233	235	**23**
Sub Total	6,710	6,911	7,112	7,313	7,515	7,716	7,917	8,118	8,319	8,521	8,722	**2,012**
Non residential Trips												
Retail	629	648	667	687	715	745	776	808	841	876	912	**283**
Office	183	188	194	200	208	217	226	235	245	255	265	**82**
Industrial	346	356	367	378	393	409	426	444	462	482	501	**156**
Institutional	2,037	2,097	2,160	2,224	2,315	2,411	2,511	2,615	2,723	2,836	2,953	**916**
Sub Total	3,195	3,290	3,387	3,488	3,632	3,782	3,939	4,102	4,271	4,448	4,632	**1,437**
Vehicle Trips												
Grand Total	9,905	10,201	10,500	10,801	11,147	11,498	11,856	12,220	12,591	12,969	13,354	**3,449**

Source: Institute of Transportation Engineers, Trip Generation, 11th Edition (2021)

E.3. Street Standards

The City of Parma has adopted the current edition of the Idaho Standards for Public Works Construction (ISPWC). The city has prepared and adopted City Code for development and construction standards in conjunction with the current edition of the ISPWC. One of the components included in the construction standards is street standards. The street standards include recommended rights-of-way width, pavement materials, construction practices, geometric design elements of roadways, typical sections of roadways and other specified requirements, which may not be covered under the ISPWC standards or contained in the City Code. Ordinances and construction standards aid the city in providing an orderly and logical expansion of the city. The city currently has several ordinances in place to address street and utility improvement requirements. Excerpts (taken from the Parma Idaho, City Code) of ordinances that pertain to street and transportation development follows:

Chapter 3 Streets

6-3-2 Streets

A. Street Design Requirements: Streets including collectors as designated by the city of Parma, shall be designed incorporating the principles of balanced blocks, curvilinear layout, multiple access points, minimization of cul-de-sacs, and connectivity to adjacent, undeveloped properties. Maximum block perimeter shall be one thousand six hundred feet (1,600') defined as the centerline of surrounding streets. Exceptions to the maximum block perimeter length due to topographic constraints will be considered.

B. Reserve Strips: Reserve strips controlling access to public streets may be permitted; provided, however, that the control and disposition of land comprising such strips is placed within the jurisdiction of the city.

C. Frontage Streets: Where a subdivision/development abuts or contains an existing or proposed arterial street, railroad or limited access highway, the city may require frontage streets, or such other treatment for the appropriate use of the tract.

D. Half Street Dedication:
   - Half Street dedications shall be discouraged; provided, however, the city may accept a partial street dedication when such street forms the boundary of the proposed subdivision and is deemed to be necessary for the orderly development of the neighborhood, and provided the city finds it will be appropriate to require the dedication of the remainder of the right of way when the adjoining property is developed. When a partial street exists adjoining a proposed subdivision the remainder of the right of way shall be dedicated and the street shall be treated in the same manner as a full street.
   - Whenever there is an existing half street right of way adjacent to a tract to be subdivided, the developer shall be required to improve, as a minimum, two (2) traffic lanes centered about at the proposed center of the street and one parking lane contiguous with the curb and gutter and sidewalk.

E. Right of Way Width:

   - Street right of way width is to be measured from property line to property line. The minimum and maximum right of way of streets so measured shall be:

Street classification	Minium R/W Widths (in feet)	Maximum R/W Widths (in feet)
Urbanizing area streets:		
Principal arterial	80	100
Minor arterial	66	80
Collector street	60	80
Local street	50	60

- Interior roads within a subdivision/development, which are non-collectors and nonarterial roads, are allowed to have a fifty foot (50') right of way provided that a ten foot (10') permanent utility easement is given along each side of the right of way line. Roads with fifty-foot (50') rights of way shall have a right of way allowance for a minimum of twenty-foot (20') curb radii and pedestrian ramps at the intersections.

F. Cul-De-Sac Streets: Cul-de-sac streets shall terminate in a circular turnaround with a right of way radius of at least fifty feet (50'). The city may approve an equally convenient form of turning space where extreme conditions justify. The maximum length shall be six hundred feet (600') from the entrance to the center of a turnaround, with the following exceptions:

- Alternative types of turnarounds for cul-de-sacs which will provide access to less than thirteen (13) dwelling units may be permitted by the city if approved by the fire department and highway district having jurisdiction.
- In zoning districts which prohibit densities greater than one dwelling unit per two (2) acres, cul-de-sac streets up to a maximum of one thousand five hundred feet (1,500') in length may be permitted by the city if approved by the fire department and the highway district having jurisdiction. No more than twenty (20) dwelling units shall be permitted on said cul-de-sac.
- In zoning districts which prohibit densities greater than one dwelling unit per five (5) acres, cul-de-sac streets up to a maximum of two thousand eight hundred feet (2,800') in length may be permitted by the city if approved by the fire department and highway district having jurisdiction. No more than twenty (20) dwelling units shall be permitted on said cul-de-sac.

G. Dead End Streets: Dead end streets will not be approved except in locations designated by the city as necessary to future extensions in development of adjacent lands. In any case, a dead-end street serving more than four (4) lots shall provide by easement a temporary turning circle with a fifty-foot (50') radius or other acceptable design to accomplish adequate access.

H. Loop Streets: Loop streets shall be limited to a maximum length of one thousand two hundred feet (1,200') measured along the centerline of the street from centerline intersection to centerline intersection.

I. Street Intersections and Alignments:

- Streets shall be planned to intersect as nearly as possible at right angles, but in no event at less than seventy degrees (70°).
- Where any street deflects at an angle of ten degrees (10°) or more, a connecting curve shall be required having a minimum centerline radius of three hundred feet (300') for arterial and collector streets, or the minimum required by the American Association of State Highway Transportation Officials (AASHTO) or the Idaho Transportation Department (ITD), and one hundred twenty-five feet (125') for local streets.

- Streets with centerline offset of less than one hundred twenty-five feet (125') shall be avoided.
- A tangent at least one hundred fifty feet (150') to two hundred feet (200') long shall be provided between reverse curves on arterial and collector streets, and/or the minimum provided for by AASHTO or ITD requirements, if more stringent.
- Street intersections with more than four (4) legs and Y type intersections where legs meet at acute angles shall be avoided.

J. Street Grades and Widths: Street grades shall not exceed nine percent (9%) nor less than five-tenths of one percent (0.5%) on local and collector streets. The grades for all other streets shall be as approved based on individual conditions and safe engineering practices. Minimum, street width for a local road shall be forty feet (40'), back-to-back of curbs. All other road width shall be determined by traffic use and volume.

K. Street Names: The naming of streets shall conform to the following:

- Street names shall not duplicate any existing street name except where a new street is a continuation of an existing street; street names that may be spelled differently but sound the same as existing streets shall not be used.
- All new streets shall be named as follows: Streets having a predominantly north-south direction shall be named "avenue" or "road", streets having a predominantly east-west direction shall be named "street" or "highway", meandering streets shall be named "circle", "court", "way", "place" or shall conform to local customers. (Ord. 541, 2-26- 2007)

Chapter 4, Street and Utility Improvement Requirements

6-4-2: Required improvements:

A. Minimum Improvements: It shall be the responsibility of the owner or subdivider to construct in accordance with city standards and specifications the following minimum improvements for the subdivision/development:

- Curbs and Gutters: Curb and gutters shall be installed on both sides of all roads. All functionally classified roads shall include six inch (6") straight curbs. Other local streets may have three inch (3") rolled curbs upon approval by the city engineer. Other variations may be approved if deemed appropriate by the city council.
- Sidewalks: Concrete sidewalks on both sides of the street may be adjacent to the curb or may be meandering, with a landscape strip between sidewalk and street. Except as where otherwise provided for below, all such sidewalks shall have pavement at least five feet (5') wide along functionally classified streets, and at least four feet (4') wide along local streets. Where a configuration involving a landscape strip is implemented, the developer shall ensure that the subdivision's covenants, conditions and restrictions provide that either the homeowner, or the homeowners' association, if more appropriate, maintain the landscape strip. For areas encompassed and affected by title 5, chapter 9, "Gateway Street Beautification", of this code, all specifications and requirements relating to sidewalks will be governed by the requirements and provisions found therein.
- Pedestrian Walkways: Pedestrian walkways, when required and/or provided, shall have easements at least twenty feet (20') wide and pavement at least seven feet (7') wide. All developments shall provide safe pedestrian and bicycle access throughout the development that connects with existing and proposed pedestrian and bicycle routes as shown in the Parma comprehensive plan.

Chapter 5, Planned Unit Development

6-5-3-1: Planned unit development

I. Development Standards: The development proposal shall be preplanned in its entirety and be characterized by a unified site design. Approval of a planned unit development shall substantially conform to the zoning district in which the development is located unless otherwise provided herein and based on the following:

- Off Street Parking: Off street parking shall comply with the parking requirements of the underlying zone. No common parking or maneuvering areas shall be allowed within twenty feet (20') of the boundary of the PUD. All common parking or maneuvering areas shall be buffered from adjacent properties. The buffer area must be landscaped, screened, or protected by natural features with the objective of minimizing adverse impacts to surrounding properties. In addition to the above requirements, where on street parking is prohibited, at least one-half (1/2) additional parking space per dwelling unit shall be provided either in approved parking bays along the street or in an off-street parking area.
- Signs: Signs shall comply with the signage ordinance (Title 5, Chapter 10 of this code).

J. Private Streets: Private streets may be utilized within the project subject to the same standards for public streets set forth in Section 6-3-2 of this title when the following requirements are met:

- The planning and zoning commission, after recommendation of the fire chief, county sheriff, public works supervisor and city engineer, finds that the design of the proposed streets, pedestrian ways and off-street parking is adequate to protect public health, safety and welfare and shall adequately accommodate anticipated uses within the development. Private streets shall be owned by a homeowners' association, and all future repair and maintenance costs, including reconstruction, shall be borne by the homeowners.

Chapter 7, Public Ways, and Property

7-1-1: Streets and alleys in city additions: Streets and alleys laid out in any addition to the City shall be continuous with and correspond in directions and width to the streets and alleys of the City to which they are in addition. (1959 Code §9-401)

7-1-4: Sidewalk construction and maintenance:

- Construction Specifications: All sidewalks hereafter construction within the Municipality shall be five feet (5') in width, unless a different width be approved by the Council, and shall be constructed of cement to a depth of four inches (4") at a ratio of five (5) parts gravel to one part cement, broomed finished and sloping from the inside toward the street at a grade level of not more than one-half inch (1/2") to five feet (5'). (1959 Code §9-501)
- Maintenance and Repair: All sidewalks within the Municipality shall be kept in a good state of repair and in a safe condition for the use of pedestrians, such repair and maintenance to be the responsibility of the owner of the property in front of which a sidewalk is located.

In the event the owner of the property in front of which a sidewalk is located does not repair nor put in a safe condition such sidewalk within thirty (30) days after written notice by the Council or its representative, the Council may cause such repairs to be made or such sidewalk to be removed and replaced with an adequate sidewalk and assess the cost thereof against such private property, such assessment to be certified by the Clerk to the County Assessor or Auditor and such assessment to be placed on the assessment roll and collected for the City in the same manner as other Municipal taxes are collected. (1959 Code§9-503).

E.4. Street Classification and Circulation Map

The City Street Map, Zoning Map, and Comprehensive Plan Map have been reviewed in preparing this section of the TMP. Preserving corridors for major streets is critical for future circulation. Developing a Street Classification and Circulation Map to reserve locations for major streets during development will save city funds and assist developers with planning projects.

The street classification identifies streets that exist, and future streets required to move traffic after development without delay and safety concerns. Rural communities like Parma usually maintain Major Collectors, Minor Collectors, and Local Streets. Cities over 5000 population no longer use Major and Minor Collector designation; the major and minor collectors are referred to as Collectors.

On the proposed map major and minor collectors is referred to as “Collector”. All streets not designated as a collector or arterial are local streets.

Traffic circulation planning provides both the city and developers information to coordinate development and traffic flow. A major goal for circulation planning is identifying the location of collectors. Local street’s locations are flexible if the collectors are identified. A new commercial developments or schools can significantly affect the local peak hour traffic. Adjusting the circulation map during such events should be part of the development process. Traffic studies completed by a developer demonstrating development build out impacts can assist the city in making judicious decisions for traffic circulation.

F. Improvement Plan

A Capital Improvement Plan (CIP) is a major transportation planning tool. It is the process of systematically inventorying and prioritizing a community's major capital improvement projects within a proposed time frame. The CIP lists the projects and improvements needed based on the projected traffic volumes and capacity analysis of roadways and intersections, sense of priority and available funding options and indicates the agency responsible for implementation.

There are several benefits for developing and adopting a CIP. The CIP provides a management tool for the City Council and City Staff and can also provide valuable information to the Planning Commission, citizens of the city, developers, and businesses who are interested in the development of the community. The CIP document will assist in planning available resources and funds and coordinating City projects with those of other public or private developments.

Despite many benefits of capital improvement planning, it is necessary to understand that this CIP is a document and serves as a guideline book. There can be changes in the plan and order of projects identified because of many reasons. Estimated costs for the projects and available funds can fluctuate because of changing economic conditions or shifts in public policy and hence these CIP projects should be reviewed and updated annually. Project priorities may be adjusted depending on the need and funding availability.

Recommended street improvement projects are identified in two classifications: major reconstruction and minor repairs/reconstruction of a small segment. For major reconstruction of streets, the city will most likely seek federal funding. Minor repairs/reconstruction of small segments will likely be locally funded projects.

F.1. Improvement Projects

Capital Improvement Projects (CIP) are generally major capital investments with long life cycles (in the range of 30 to 50 years) such as bridges, reconstruction of road base, and asphalt overlays. CIPs are generally funded by federal dollars with a local match required. Occasionally large Preventative Maintenance Projects (PMP) are included in a CIP.

Preventive Maintenance Projects (PMP) are often funded by local budgets and include chip seals (also called seal coats), scrub coats, and small asphalt overlays. Base repair at localized areas, road widening, culvert replacement, and shoulder recovery may be included in these projects. The life cycle of these projects is more frequent, such as 5 to 10 years.

The improvement project list is a living document and should include both the capital improvements and preventive maintenance projects and should be updated annually. Projects in the list should include priority of projects for five years, the name and brief description of the project, the expected year of construction, the probable costs including preliminary engineering costs, and funding source. Project size may be adjusted depending on the need and funding availability. For major reconstruction of roads, the city will most likely seek federal funding. For improvement projects less than $500,000, state investment funds are more cost effective.

With limited budget and resources, the City of Parma's Public Works Department has diligently worked on maintaining and improving road surfaces within the city over the past several years. The PWD has a maintenance program that has been fine-tuned to a point that all equipment is serviced frequently, resulting in a reduction in maintenance expenses and time for equipment inspections and repairs.

Recently the city has proposed collecting development impact fees and estimates investing in the following capital improvement project worth $340,146. A CIP listing proposed projects for the city for the next 10 years is included in table below and is visually illustrated in the figure below:

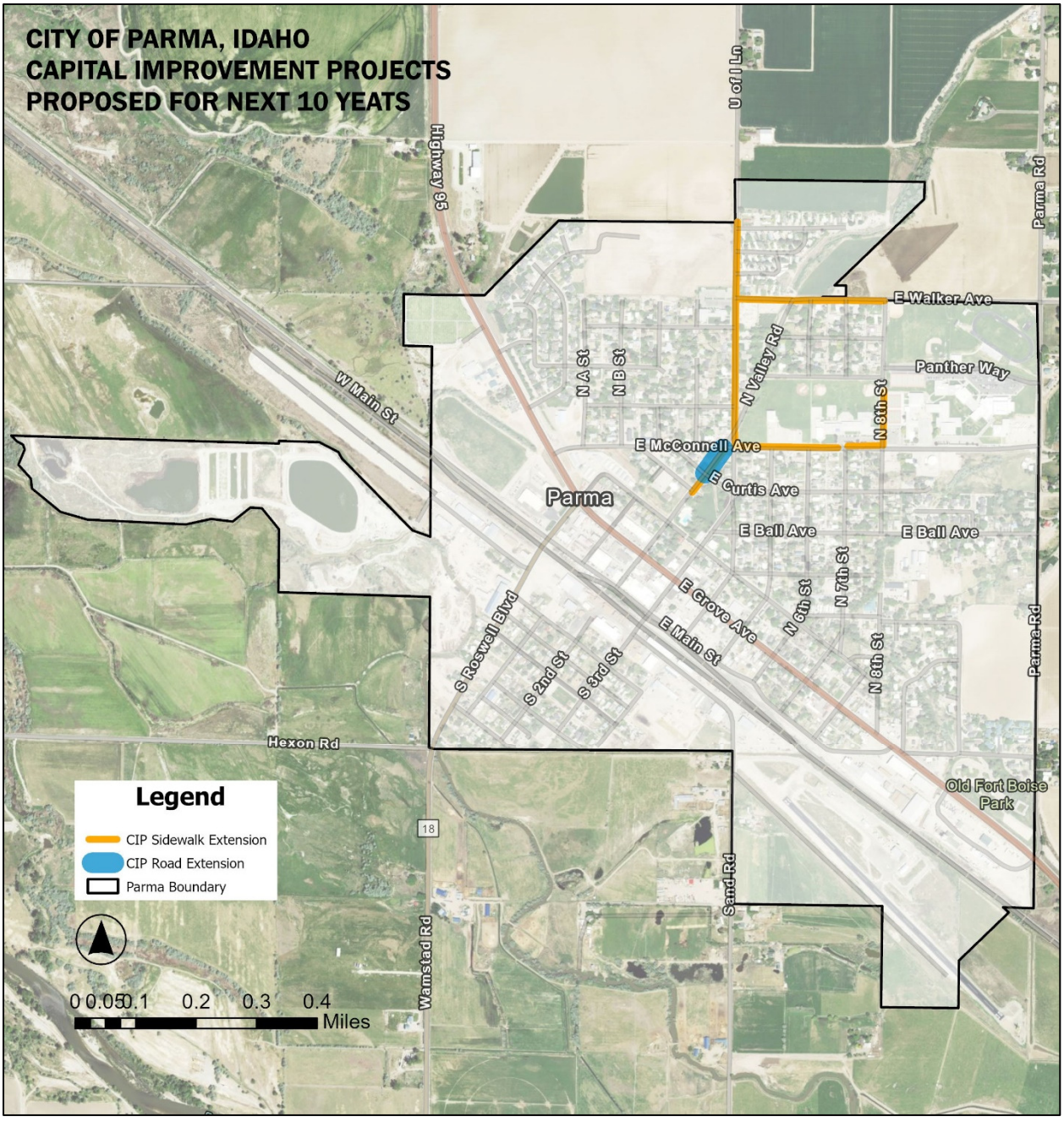
ITD has one project planned in its Transportation Improvement Program (TIP). Project FY2541 programed for FY2024. The project is to update and replace all sign faces along US-95 beginning at the Oregon state line through Owyhee County and Canyon County ending near the City of Payette.

Table 16: List of 10-year Capital Improvement Projects for the City

Project Type	Project Location	Proposed Funding	Amount ($)
Sidewalk Expansion	From Cubs Park to McConnell Ave	Development Impact fee	$13,860.00
	From Maxine Johnson Elementary School to 4th St	Development Impact fee	$ 14,112.00
	From 4th St to Walker Rd	Development Impact fee	$49,056.00
	From 4th St to Cooper Crossing Driveway	Development Impact fee	$3,528.00
	From 4th St & Walker Rd to 8th St	Development Impact fee	$46,074.00
	From 8th St to just past Locust Ave to new tennis courts	Development Impact fee	$33,516.00
Street Extension	2nd Street from Curtis Ave to McConnell Ave	Development Impact fee	$180,000.00

Source: Capital Improvement Plan and Development Impact Fee Study, Parma

Figure 19: Improvement Projects for Next 10 Years



G. Funding

There are several funding possibilities available from the state and federal government. There are possible funds available through agencies such as the Idaho Commerce and Labor Department and Economic Development. Most funding agencies require the city to identify projects and list them in their Capital Improvement Plan. Most of these funding agencies require the City to provide a percentage of local funds to match the total funding. The matching funds for Capital Improvement Projects may be funded through local tax revenues and development fees. Following is a list of funding agencies and programs that provide funds for street developments:

Surface Transportation Program (STP) Local Rural

These funds are allocated for projects in rural areas in cities with populations below 5,000. They may be used for new construction, reconstruction or rehabilitation of roadways functionally classified with FHWA as rural major collectors, with a small percentage allowed for minor collectors. The local match requirement is 7.34%. The funds are awarded through the Local Federal-aid Incentive Program administered by the Local Highway Technical Assistance Council (LHTAC).

Funding available by application to LHTAC by the City of Parma are:

- Local Rural Highway Investment Program (LHRIP) funds are available to the city each year in $100,000 increments for resurfacing and improving local roads. These funds may be applied for each year and may be used on any improvement or maintenance road or bridge project. No local match is required.
- Surface Transportation Program (STP) Local Rural funds are allocated for projects in rural areas. These funds may be used for new construction, reconstruction, or rehabilitation of roadways functionally classified with FHWA as rural major collectors. A local match of 7.34% is required.
- STP Bridge funds are for the replacement or rehabilitation of bridges. The bridge must be at least 20 feet long and have a qualifying “sufficiency rating” of 50 or lower and be structurally deficient or functionally obsolete. A local match of 7.34% is required.

Local Rural Highway Investment Program

The Investment Program is a grant program that provides funding for road paving, drainage structure replacement, signage upgrades, transportation planning, reconstructing roadways, and most other types of construction on any public road. Matching funds are not required for this program, but LHTAC encourages matching funds. The work must be contracted out when the estimated cost of the project is more than $50,000. Maximum funds are $100,000 per year, per agency. These funds do not require federal project requirements to be met.

These funds are exchanged by the LHTAC with the ITD at $0.61 per $1.00 up to a maximum of $2.8 million in state funds.

Congestion Mitigation Air Quality (CMAQ)
These funds are available statewide. This competitive program provides federal transportation funding for air quality projects, planning, and programs. Projects under this program falls under two categories: construction and non-construction. These funds are available for projects which provide significant air quality benefits, and projects directed toward solving a transportation related air quality problem. The local match requirement is 7.34%. Projects such as dust control and prevention (sweeper/flusher trucks, unpaved road stabilization, and deicing equipment/supplies), special studies for air quality monitoring, alternative transportation education etc., are eligible under this program.

The above listed funds are available from the State and federal government annually. Each year LHTAC sends out application packets to all cities with a population under 5,000, and eligible projects are identified and rated for the funding process. Top rated projects are funded based on available funds. It is recommended that the City adopt a plan to procure local funds annually to match the State and federal funds every year to obtain the federal funding.

G.1. Existing City Budget

The City of Parma's budgets for the Public Works Department demonstrate the effects of a major project for a small community with a limited budget.

G.2. Alternate Potential Funding Sources

Alternate methods of increasing funding controlled by the City of Parma are:

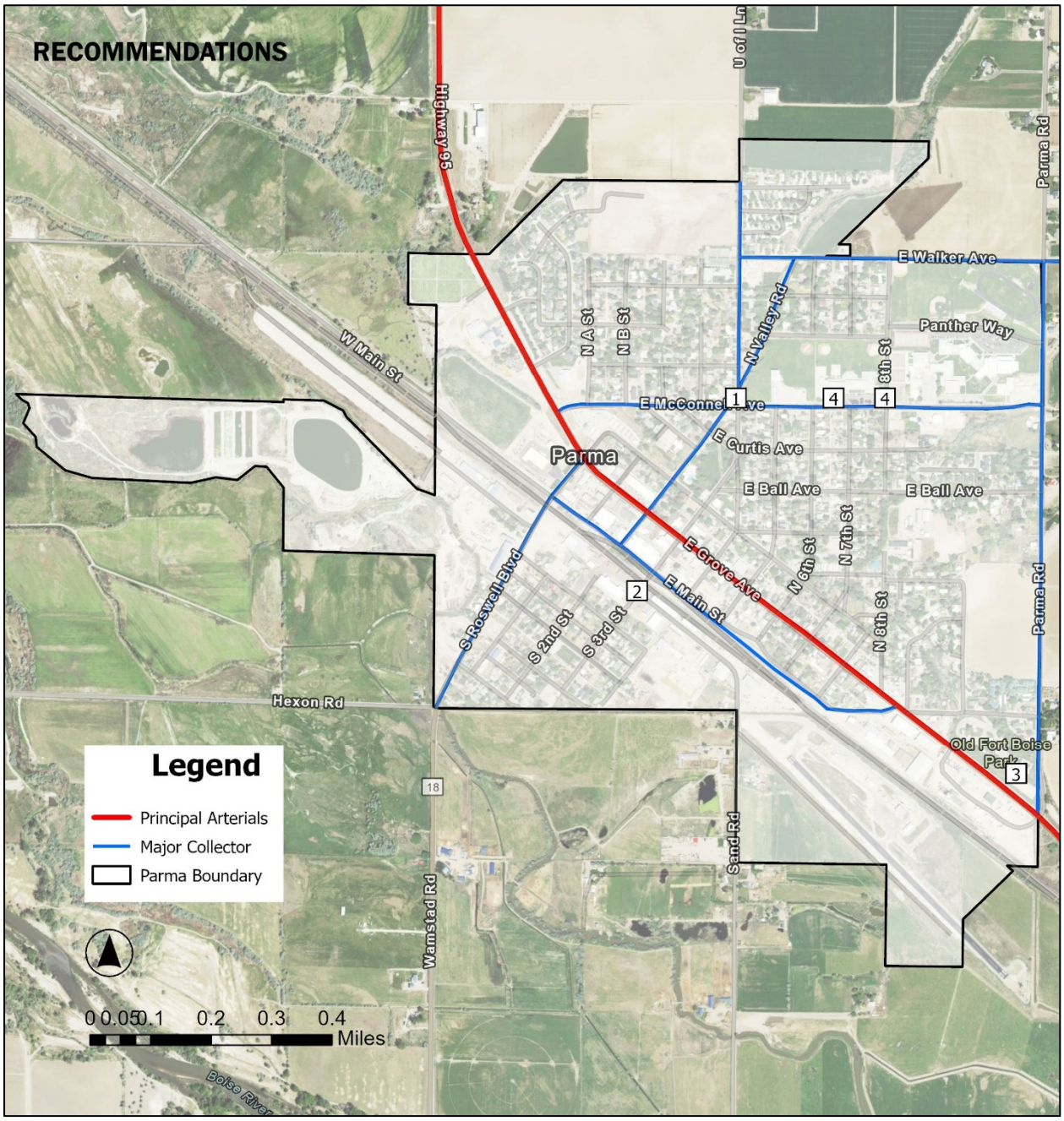
- Local Property Tax (City) – may increase local tax to cover the increased cost to maintain the existing City Road System.
- Development Impact Fee – which can only be used for capital improvements, not operating or maintenance costs.
- State's funds
- Local Option Vehicle Registration Fees – requires approval by a county-wide majority vote (50% + 1). Fees collected from motor vehicles in Parma would be allocated to street-related projects as determined by the Council.
- Idaho Gas Tax Increase – requires support from Idaho Legislature.

The City of Parma will face an increasingly competitive environment in seeking grant funds. These funds can extend local construction dollars making large projects feasible that otherwise are unaffordable. Projects using federal STP dollars should be at least $500,000 for construction. It is recommended that project limits be nearer to $1,000,000. The supposition of this recommendation is based on the cost to obtain federal clearance for environmental and design on each project. The duration of time for STP funded projects will take a minimum of 5 to 7 years to be constructed once accepted.

H. Conclusions and Recommendations

This report recommends several key infrastructure improvements to enhance safety and connectivity in Parma. Figure 20 shows the location of the recommendations that follow.

Figure 20: Recommendations



1. Improve the Five-Point Intersection of N 2nd St, N 4th St, and E McConnell Ave:
    - Consider installing an island to channelize for enhancing traffic flow and safety.

- Implement clear signage, marked pedestrian crosswalks, curb extensions, and improved street lighting to further increase overall traffic safety.

2. Improve the intersection of S 3rd St and South St (including a railway crossing):
    - Install advanced warning systems such as flashing lights, bells, and automatic gates.
    - Enhance pedestrian safety with dedicated pathways, barriers, and improved visibility through better lighting.

3. Improve the road passing through Old Fort Boise:
    - Add clear lane demarcations, sidewalks, gutters, and curbs.

4. Enhance pedestrian safety near elementary and middle schools:
    - Install rectangular rapid flashing beacons (RRFBs) at street crossing points.
    - Ensure heightened visibility and awareness for crossing pedestrians, particularly students.

5. Complete sidewalk gaps on streets of citywide importance:
    - Focus on arterials and major collectors.

6. Develop an inventory and easy-to-use pavement management:
    - Create an inventory of completed projects.
    - Establish a pavement management request system for efficient repair and maintenance efforts.

Appendix A

Maps

Appendix B

Traffic Data

Appendix C

Street Classification

Exhibit A4.9

RESOLUTION NO. 2025-13

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PARMA, CANYON COUNTY, IDAHO, RELATING TO THE AREA OF CITY IMPACT PURSUANT TO IDAHO CODE § 67-6526(3) AND (4), REQUESTING THE CANYON COUNTY BOARD OF COMMISSIONERS APPROVE A MODIFIED AREA OF CITY IMPACT BOUNDARY AS SET FORTH ON THE ATTACHED MAP; TO SET A PUBLIC HEARING FOR SAID PROPOSAL; TO ACCEPT THE COST OF NOTIFICATION BY MAIL TO EACH OWNER OF PROPERTY LOCATED WITHIN THE PORTION OF THE AREA OF IMPACT THAT IS PROPOSED TO BE MODIFIED; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, Idaho Code § 67-6526(6) requires all Cities and Counties to review existing areas of impact and to re-establish them in conformance with the provisions of that section by December 31, 2025; and

WHEREAS, The City of Parma has an existing Area of Impact boundary; and

WHEREAS, the City of Parma, in reviewing the existing Area of Impact boundary, has determined portions of the Area currently included do not meet the requirements for inclusion set forth in Idaho Code § 67-6526(4)(a) and (b); and

WHEREAS, the City desires the existing Area of Impact Boundary to be modified and said modification to be approved by an ordinance adopted by the Board of County Commissioners of Canyon County.

NOW, THEREFORE, it is RESOLVED by the City Council of the City of Parma, Idaho as follows:

Section 1 : The City Council has considered the following factors relating to establishing and modifying an Area of City Impact boundary, pursuant to Idaho Code § 67-6526(4)(a):

(i) Anticipated commercial and residential growth
(ii) Geographic factors
(iii) Transportation infrastructure and systems, including connectivity;
(iv) Areas where municipal or public sewer and water are expected to be provided within five (5) years; and
(v) Other public service district boundaries.

Section 2: The City Council has considered and incorporated the requirements of Idaho Code § 67-6526(4)(b) in requesting this modification to the Area of City Impact boundary, namely, the proposed boundary does not at any point extend more than two miles from existing City limits, and the City Council finds that all lands within the proposed modified boundary are very likely to be annexed to the City within the next five (5) years, using the criteria set forth in Section 1 above.

Section 3: The City of Parma requests the Canyon County Board of Commissioners set a public hearing for the proposed modified Area of City Impact boundary as set forth in the Map attached as Exhibit "A" to this Resolution.

Section 4: The City of Parma requests the Canyon County Board of Commissioners, after the public hearing provided in Section 3 above, adopt an ordinance establishing the modified Area of Impact Boundary as set forth in the Map as attached as Exhibit "A" to this resolution.

Section 5: In the event the Board declines to adopt the proposed Area of Impact boundary, or proposes a different boundary after the public hearing, the City requests a joint meeting with the Canyon County Board of Commissioners to review the proposed Area of Impact Boundaries, the public hearing testimony, and the specific criteria addressed in that testimony, to attempt to work together to arrive at a mutually acceptable modified boundary.

Section 6: This resolution shall take effect and be in force immediately upon its passage and approval.

Passed and approved this **12th day of August, 2025.**

By: _____
Angie Lee, Mayor

ATTEST: _____
Melissa Klinge, City Clerk

Exhibit 5

PARMA / CANYON COUNTY AREA OF IMPACT 2025

2025 UPDATE

IDAHO CODE 67-6526

(6) Cities and counties shall review their existing areas of impact and shall reestablish the areas in conformance with the provisions of this section by December 31, 2025.

Jacob Qualls
IdCMCT-A

City Treasurer
P&Z Administrator

City of Parma

PARMA REDUCTION OF AREA OF IMPACT

AREA OF IMPACT REVIEW

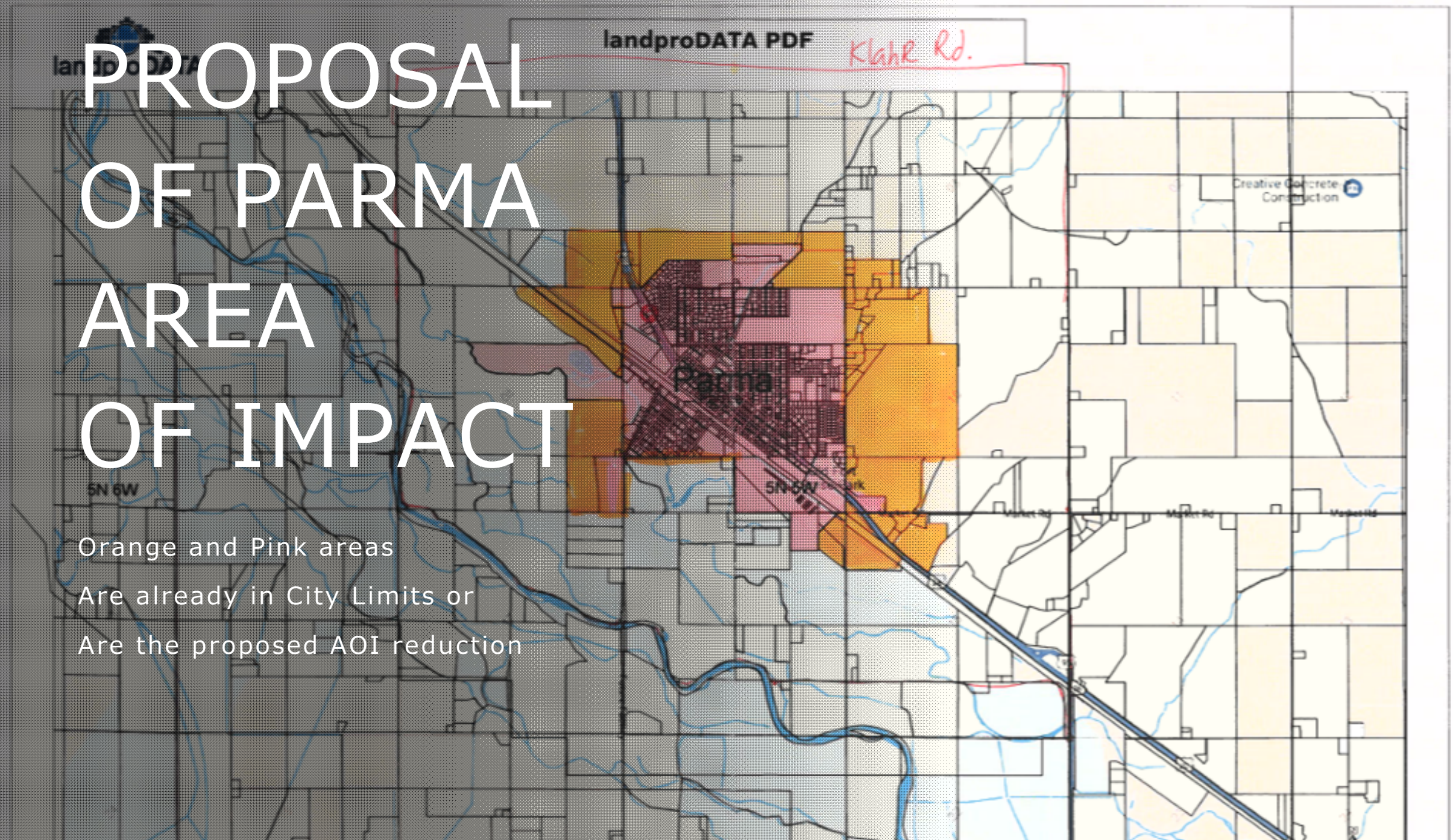
August 19, 2025, Letter of Intent

AREA OF IMPACT REVIEW

Reduction to meet IC-67-6526

(Land Use Planning Act)

PROPOSAL OF PARMA AREA OF IMPACT



Orange and Pink areas

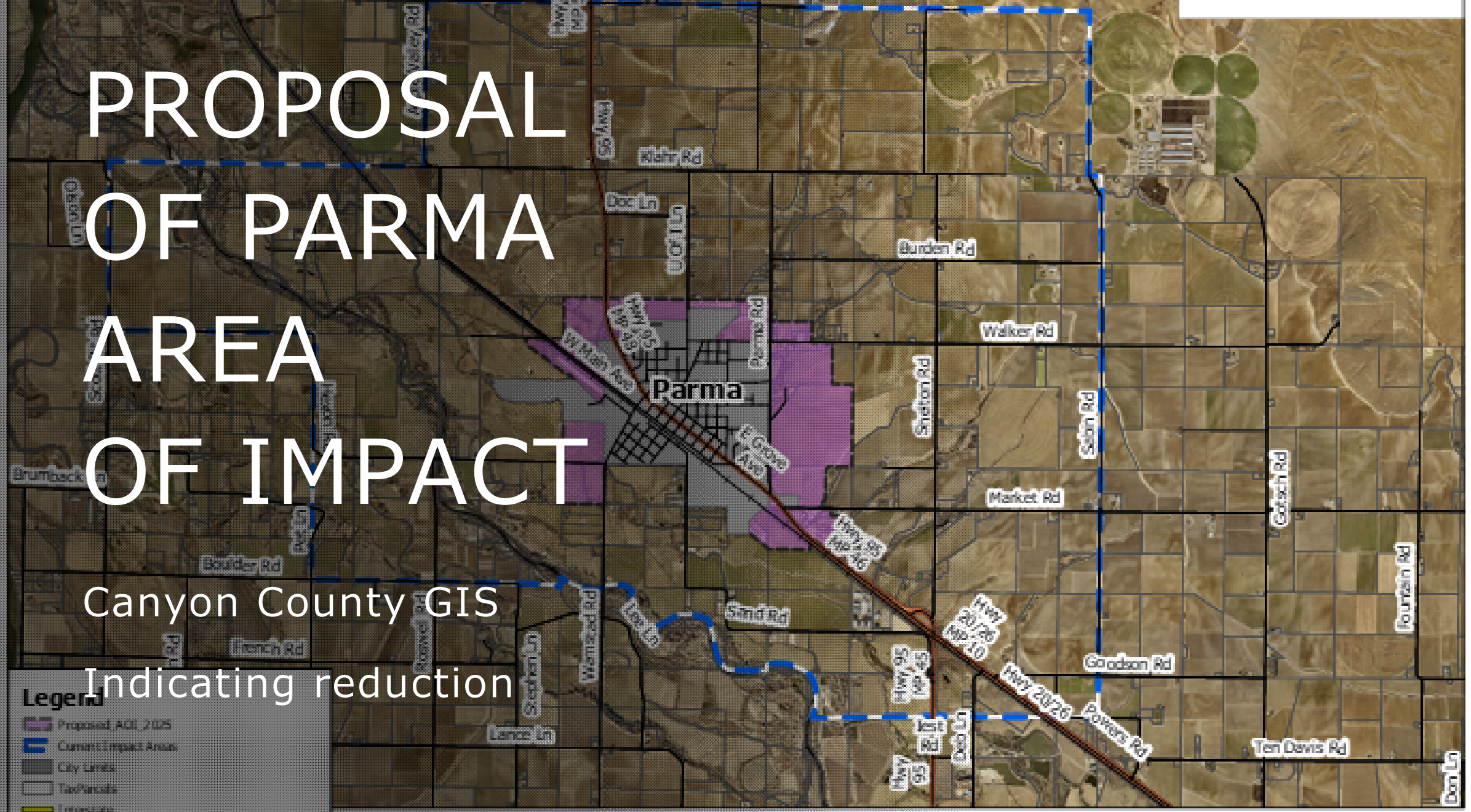
Are already in City Limits or

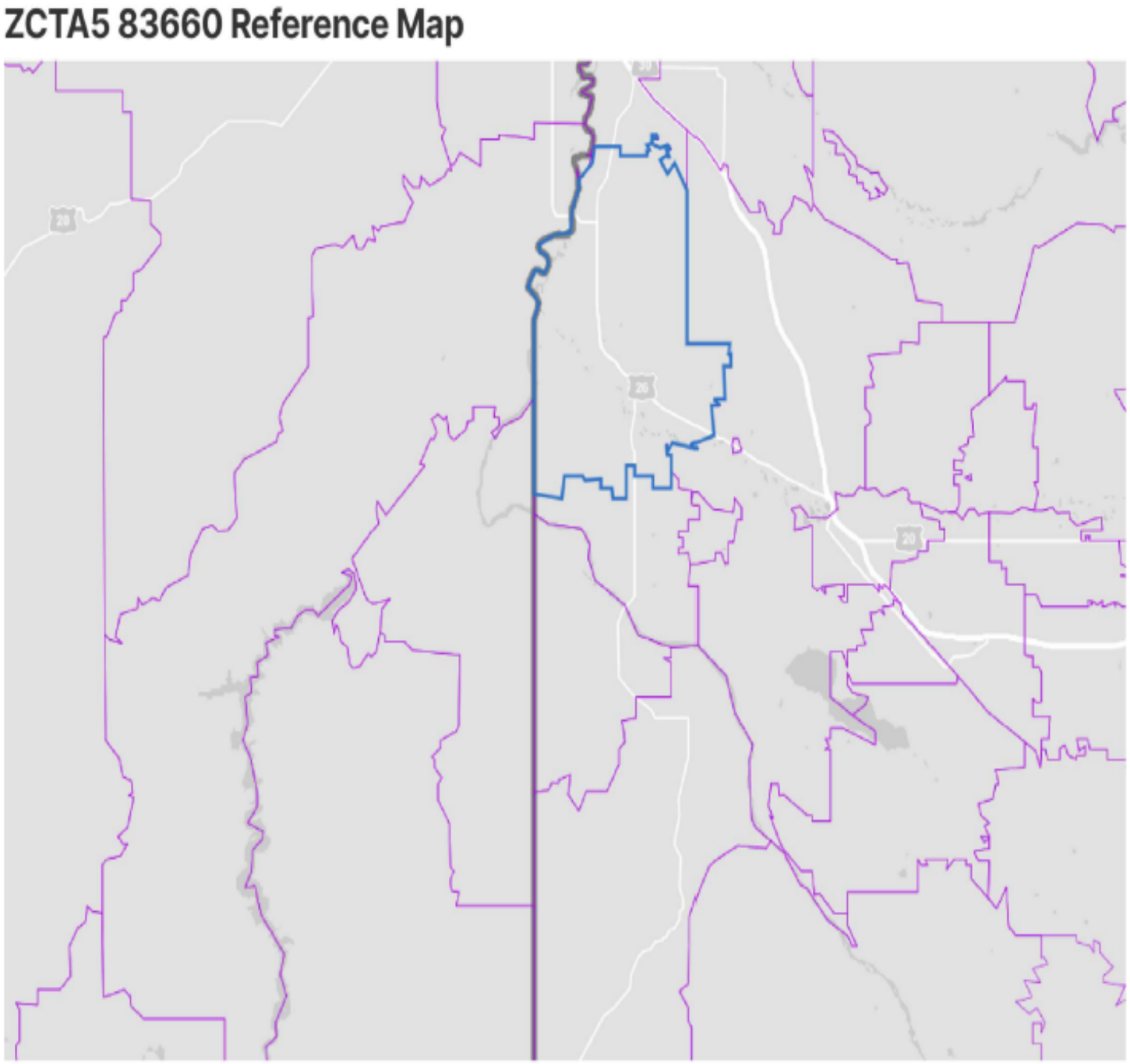
Are the proposed AOI reduction

PROPOSAL OF PARMA AREA OF IMPACT

Canyon County GIS

Indicating reduction





Census Reference Map

As each of you know, Idaho is experiencing rapid growth.

According to Idaho Department of Labor News Release March 14, 2025

Canyon County 3.1% Increase of 8,150 persons (2024)

NEW RESIDENTIAL BUILDING PERMITS

The City of Parma is currently issuing permits for “Infill” or of approved subdivisions within the City Limits

	New residential Building Permits
2025 – to date	25
2024	8
2023	21
2022	8
2021	7
2020	4
2019	3

EXPECTED GROWTH PATTERNS

Western Treasure Valley

Rank	Largest counties	2024		
		Estimate	% Change	# Change
Idaho		**2,001,619**	**1.5%**	**30,497**
1	Ada	535,799	1.7%	9,109
2	Canyon	266,892	3.1%	8,150
3	Kootenai	188,323	1.7%	3,086
4	Bonneville	133,644	1.6%	2,169
5	Twin Falls	96,509	1.2%	1,105
6	Bannock	91,010	0.5%	425
7	Madison	55,549	0.8%	426
8	Bonner	53,955	2.4%	1,246
9	Bingham	50,889	1.0%	491
10	Nez Perce	42,847	-0.3%	-131
Total		**1,515,417**		**26,076**
Share of Idaho's growth		**75.7%**		**85.5%**

Growth of Area

As each of you know, Idaho is experiencing rapid growth.

According to Idaho Department of Labor News Release March 14, 2025

Canyon County 3.1% Increase of 8,150 persons (2024)

Personal Experience – Growth is coming West

Recent Annexations

In the Spring of 2025, the City of Parma annexed approximately 18.76 Acres adjacent to Parma City Limits and South of Parma Proper

This annexation is intended for Commercial Growth

Potential Growth

Throughout the summer of 2025, City Staff has met with potential developers or taken calls from private property owners regarding areas adjacent to the City Limits of Parma and within the Proposed Area of Impact to be developed in the future.

These potential Developments would include:

- Residential Neighborhoods
- Community Parks
- Light Industrial Areas

Next Steps

The City’s Next Step in Future Land Use…

Citizen Involvement is key to our Community’s Organized Growth

Approve for Public Hearing –

- Comprehensive Plan
- Future Land Use Map

Next Steps

Projects in the Works…

- Develop Community Economic Plans
- Update Zoning Ordinances / Codes
- Update Sewer Treatment Facility
- Update Water System
- Continue to work the Transportation Master Plan

City Services Provided

The City of Parma provides the following to its citizens:

- Drinking Water
- Sewer Treatment
- Library Services
- Police Services
- Community Parks
- Recreation Opportunities
- Museum (Old Fort Boise Replica)
- Airport – Lit Paved Landing Strip w/ Hangers

Transportation Plan

The City of Parma adopted its Master Transportation Plan in August 2024

Airport Master Plan

The City of Parma is currently working with Idaho Department of Transportation, Bureau of Aeronautics on a Airport Master Plan

Water Master Plan

The City of Parma Water Master Plan was created in 2023 and is consistently being reviewed and updated as projects are identified, funded and completed.

Plan indicates DRAFT due to civil lawsuit

Sewer Master Plan

The City of Parma Wastewater Treatment Plant Facility Plan Plan was created in 2025.

The city has judicial confirmation to update and expand the Sewer Treatment Facility

The most recent Wastewater Treatment Facility update is in the process of being completed. $6 million is currently budgeted FY25.26

Partners – Parma Rural Fire

The City of Parma works with the Parma Rural Fire District on developments. Continuing to ensure adequate fire flow, hydrant placements, appropriate densities in developments will help to ensure safety of our collective citizens and fire fighter safety.

The PFD has a large district in which they serve, we want to continue to be a good partner!

Partners – Parma School District

The City of Parma ensures the Parma School District is offered the opportunity to comment on every development. We also want to ensure the school can continue to serve its area. We strive to provide safe roads to the school through our city at all times.

Partners – Notus

The City of Parma and the City of Notus are great neighbors! None of our neighboring cities desire to see urban spawl. Our City Hall staffs assist one another on various issues.

Partners – Wilder

The City of Parma and the City of Wilder are also great neighbors! Our Public Works Crews work together to back one another up with Water and Sewer issues when they arise.

Partners – Road & Bridge

The City of Parma Streets Department and the Road & Bridge entities work closely together on projects using each others' resources at times.

Partners – Policing

The City of Police Department provides a School Resource Officer to Parma School District.

The City of Parma Police Department provides contracted Police Services to the City of Notus.

Partners – Policing

The City of Parma Police Department and the Wilder Police Department back each other up when needed.

The City of Parma Police Department routinely provides response to rural Canyon County until a Canyon County Deputy can safely arrive.

Partners – Postal Services

The City of Parma owns the Parma Post Office Building. The Parma-USPS delivers to a large area outside of the city limits of Parma. Many of the patrons of the 83660 Zip Code assign their community as Parma.

Partners – Canyon County Development Services

The City of Parma is often asked to provide a sign-off on Canyon County Developments within Roswell, and the surrounding areas. We would like to continue this practice, so we are aware of what is happening outside of the Area of Impact, but still adjacent. Some Roswell Citizens have asked for the city to take over management of their public utility services

Anticipated Growth – East towards Notus

We hope Canyon County would consider the area between Parma and Notus and Parma and Wilder to be zoned in such a way to reduce the potential of Urban Sprawl. The example provides for a buffer for Residential uses.

Location	Possible Zone
North Side of Highway 95 / 26 between Parma / Notus	Commercial
North Side of Highway 95 / 26 between Parma / Notus and North Side of Commercial Zone	Residential
South Side of Highway 95 / 26 between Parma / Notus adjacent to Railroad	Industrial
South Side of Highway 95 / 26 between Parma / Notus adjacent South of Railroad	Commercial
South Side of Highway 95 / 26 between Parma / Notus adjacent South of Commercial Zone	Residential

Anticipated Growth – South towards Wilder

We hope Canyon County would consider the area between Parma and Notus and Parma and Wilder to be zoned in such a way to reduce the potential of Urban Sprawl. The example provides for a buffer for Residential uses.

Location	Possible Zone
East Side of Highway 95 between Parma / Wilder	Commercial
East Side of Highway 95 between Parma / Wilder and East Side of Commercial Zone	Residential
Buffer on Highway 95 between Parma / Wilder adjacent to Commercial Zones and Highway	Industrial
West Side of Highway 95 between Parma / Wilder adjacent Industrial Zone	Commercial
West Side of Highway 95 between Parma / Wilder adjacent West Side of Commercial Zone	Residential

In closing..

Parma has reviewed…

Geographical Proximities

Transportation Infrastructure

Historical Sites

Other Public Service Boundaries

Geographical Proximities – Boise & Snake Rivers

Geographical Proximities – Payette County

Geographical Proximities – Oregon Border

Transportation Infrastructure – highway 95, Highway 26, Highway 20, Notus / Parma Highway District

Historical Sites – Old Fort Boise Historical Site Wildlife Management Area & OFB Replica, Riverside Ferry, Roswell Area

Other Public Services – Parma Fire, Parma School, Parma Public Library, Parma Post Office, Parma Police

In closing..

Parma has reviewed…

Culture

Nearby Attractions

Areas to provide Water / Sewer Services

Culture – Strong Agriculture with Right to Farm Act Support, large parcels with Generational Working Farms, we wish to protect if possible.

Attractions – Agra Tourism, various wineries and vineyards in the region.

City Utility Services – are of growth within 5 years

Please Remember

The City of Parma desires to keep its culture of an Agricultural Community, its autonomy, its ability to grow in the way which fits the characteristics that make Parma its own unique community.

THANK YOU

QUESTIONS?

EXHIBIT B

Supplemental Documents

Exhibit B1

Idaho Statutes

Idaho Statutes are updated to the website July 1 following the legislative session.

TITLE 67
STATE GOVERNMENT AND STATE AFFAIRS
CHAPTER 65
LOCAL LAND USE PLANNING

67-6526. AREAS OF IMPACT. (1) Legislative findings and intent.
(a) The legislature finds that areas of impact are properly under the jurisdiction of the county because the elected representatives of citizens in areas of impact are county officials, not city officials. While cities should receive notice of, and may provide input on, applications brought to the county in an area of impact, cities do not govern or control decisions on those applications. County commissioners make the final determination regarding area of impact boundaries within their county.
(b) An area of impact is where growth and development are expected to occur. Areas of impact should be planned for growth and development and should not be used to stop growth and development that conforms to applicable plans and ordinances. Areas of impact should be established, modified, or confirmed based on the ability and likelihood of a city or cities to annex lands within that area of impact in the near future. A city may adopt a comprehensive plan and conduct infrastructure, capital improvement, and other planning activities that extend beyond its current area of impact. Counties and cities shall review their area of impact boundaries at least every five (5) years to determine if modifications are needed or to confirm existing boundaries and may pursue modification of an established area of impact more frequently than every five (5) years.
(c) Prior to conducting the public hearings required under this chapter to establish, modify, or confirm an area of impact, cities and counties should work together to develop a proposed area of impact to be considered at the public hearing.
(d) Decisions regarding the establishment, modification, or confirmation of areas of impact are legislative actions and are not subject to judicial review or challenge except as provided in subsection (5) of this section.
(2) Establishing an area of impact.
(a) Following the notice and hearing procedures provided in section 67-6509, Idaho Code, and in accordance with the provisions of subsection (4) of this section, the board of county commissioners of each county shall adopt by ordinance a map identifying the area of impact within the unincorporated area of the county for each city located in the county. Written notice of the hearing to be conducted under this subsection shall be provided by the county to each owner of property located within a proposed area of impact. If notice is also published pursuant to section 67-6509, Idaho Code, individual property owners may not challenge the proceeding on the basis that they did not actually receive notice by mail. The cost of the notice shall be

reimbursed to the county by the city whose area of impact is under consideration. The board of county commissioners is not required to receive a recommendation from the planning and zoning commission prior to enacting an ordinance establishing an area of impact. An area of impact must be established before a city may annex adjacent territory pursuant to the provisions of section 50-222, Idaho Code.

(b) If the requirements of paragraph (a) of this subsection are not met in establishing an area of impact, the city may demand compliance with this subsection by providing notice to the board of county commissioners of the demand for compliance. Once a demand has been made, a recommendation committee shall be established. The city and county shall each select a representative to participate on the committee within thirty (30) days of the demand for compliance and the process set forth in this paragraph shall commence.

(i) After the city and county representatives have been selected, they shall in turn select another city representative living within the applicable city and another county representative living in the county and not within any city to serve on the recommending committee. Meetings of the recommending committee may be hosted by the city or county and shall be conducted in accordance with Idaho open meetings law. These four (4) persons shall, by majority vote, provide a written recommendation to the board of county commissioners for an area of impact. The written recommendation shall be submitted to the governing boards within one hundred eighty (180) days after the selection of the recommending committee members.

(ii) If the board of county commissioners fails to enact an ordinance providing for an area of impact within ninety (90) days of receipt of the committee recommendation or expiration of the one hundred eighty (180) days for the committee to make its recommendation, the city may file a petition with the district court to identify the area of impact pursuant to subsection (5) of this section and in accordance with other applicable provisions of this section.

(3) Modification or confirmation of area of impact boundaries.

(a) Modification or confirmation of an existing area of impact boundary may be initiated by a city or cities or the county. If a county is initiating a modification or confirmation of an area of impact, the county shall provide at least thirty (30) days written notice to the applicable city or cities of the hearing on the proposed modification or confirmation. Any modifications to or confirmation of an area of impact boundary must be adopted by an ordinance approved by the board of county commissioners of the applicable county, following the notice and hearing procedures provided in section 67-6509, Idaho Code, and in accordance with the requirements for defining an area of impact as set forth in subsection (4) of this section. At least fifteen (15) days prior to the hearing, written notice of the hearing to be conducted under this paragraph shall be provided by the county to each owner of property located within the portion of the area of impact that is proposed to be modified. If notice is also published pursuant to section 67-6509, Idaho Code, individual property owners may not challenge the proceeding on the basis that they did not actually receive notice by mail. If the modification or confirmation

is proposed by a city, then the cost of the notice shall be reimbursed to the county by such city. If the county is pursuing the modification or confirmation, then the cost of notification shall be borne by the county. The board of county commissioners is not required to receive a recommendation from the planning and zoning commission prior to enacting an ordinance modifying or confirming an area of impact.

(b) Where areas of impact abut each other and adjustments are being proposed, or where areas of impact are proposed to abut each other, the cities involved shall negotiate boundary adjustments to be recommended to the respective city councils. The city council of each city must approve the area of impact or modifications thereto to be proposed to the board of county commissioners. These decisions by the city councils are proposals and not subject to judicial review or challenge. If the cities with impact area boundaries that abut or are proposed to abut each other reach agreement on the proposed boundaries or adjustments thereto, the requested boundaries or adjustments shall be collectively submitted by the cities to the county for consideration in accordance with paragraph (a) of this subsection. If the cities cannot reach agreement, then any or all of the cities involved may submit their requests to the board of county commissioners for consideration pursuant to paragraph (a) of this subsection. In either case, the county shall conduct at least one (1) consolidated public hearing where it considers all such requests together.

(c) The county may accept, reject, or modify a city's requested modification or confirmation regarding an impact area boundary, but if the county does not make a final decision on the request within ninety (90) days of submission of the request, the city may petition the court to make a determination on the request pursuant to subsection (5) of this section.

(4) Provisions applicable to areas of impact.

(a) In defining an initial area of impact or in modifying or confirming an existing area of impact, the criteria set forth in this subsection shall be considered:

(i) Anticipated commercial and residential growth;

(ii) Geographic factors;

(iii) Transportation infrastructure and systems, including connectivity;

(iv) Areas where municipal or public sewer and water are expected to be provided within five (5) years; and

(v) Other public service district boundaries.

(b) In addition to the criteria set forth in paragraph (a) of this subsection, an area of impact shall not exceed the areas that are very likely to be annexed to the city within the next five (5) years. Except as otherwise provided in this paragraph, an area of impact shall not extend more than two (2) miles from existing city limits. An area of impact boundary shall not divide county recognized parcels of land. If only a portion of a recognized parcel falls within the two (2) mile limit, then the boundary may extend beyond two (2) miles on that parcel so that it encompasses the entire parcel. Adjustments to an area of impact may be proposed and considered at any time following the initial establishment of the area of impact.

(c) Areas of impact may cross county boundaries only by approval of the governing board of county commissioners after following the procedures and complying with the requirements for modification or confirmation of an area of impact boundary.
(d) Areas of impact shall not overlap.
(e) The applicable county's comprehensive plan and zoning and subdivision ordinances shall apply in the area of impact. The county may adopt individual county comprehensive plan and zoning and subdivision ordinance provisions regarding a specific area of impact.
(f) Following adoption of an area of impact, the board of county commissioners shall provide the city with written notice at least fifteen (15) days in advance of any county public hearings held pursuant to this chapter or to chapter 13, title 50, Idaho Code, involving land within that area of impact.
(g) Areas of impact shall remain fixed until modifications are made pursuant to subsection (3) of this section.
(h) Prior to considering a request to establish, modify, or confirm an area of impact, the governing boards may, but are not required to, submit the request to the planning, zoning, or planning and zoning commission for recommendation. Each commission shall have a reasonable time fixed by its governing board in compliance with all required timelines set forth in this section to make its recommendation to the governing board. The county and the city shall undertake a review of the area of impact at least once every five (5) years and shall consider whether adjustments are in the best interests of the citizenry.
(i) This section shall not preclude annexation or other growth and development in areas of any county within the state of Idaho that are not within the areas of impact provided for herein.
(j) The county's decision establishing, modifying, or confirming the boundaries for an area of impact shall be made in writing and shall contain the reasoning of the board of county commissioners, including application of the facts relied upon by the commissioners and the application of the pertinent requirements and criteria to establish or modify an area of impact.
(k) If the area of impact has been properly established, persons living within the delimited area of impact shall be entitled to representation on the planning, zoning, or the planning and zoning commission of the city of impact. Such representation shall as nearly as possible reflect the proportion of population living within the city as opposed to the population living within the areas of impact for that city. To achieve such proportional representation, membership of the planning, zoning or planning and zoning commission may exceed twelve (12) persons, notwithstanding the provisions of subsection (a) of section 67-6504, Idaho Code. In instances where a city has combined either or both of its planning and zoning functions with the county, representation on the resulting joint planning, zoning or planning and zoning commission shall as nearly as possible reflect the proportion of population living within the impacted city, the area of impact outside the city, and the remaining unincorporated area of the county. Membership on such a joint planning, zoning or planning and zoning commission may exceed twelve (12) persons, notwithstanding the provisions of section 67-6504(a), Idaho Code.

(5) Petitions for review of establishment, modification, or confirmation of area of impact. The decisions by the board of county commissioners regarding the establishment, modification, or confirmation of areas of impact are legislative actions and are not subject to judicial review, declaratory action, or other legal challenge, except as specifically provided in this subsection.

(a)(i) If a county has not complied with the provisions of subsection (2) or (3) of this section, the city seeking the establishment, modification, or confirmation of an area of impact may petition the district court to establish, modify, or confirm an area of impact that meets the criteria and requirements of subsection (4) of this section in accordance with the procedures provided in this subsection. If the modification of an area of impact boundary involves areas of impact boundaries that abut each other or that are proposed to abut each other, then any city whose area of impact abuts or is proposed to abut another area of impact boundary may file a petition challenging the county's determination regarding only those boundaries that abut or that are proposed to abut each other. Any petition regarding a proposed area of impact or portion thereof that is subject to challenge must be filed in the county in which the proposed area of impact or portion thereof is located.

(ii) Before a city may file a petition for review of an area of impact decision made by the county, as provided in paragraph (a)(i) of this subsection, it must first file a request for reconsideration with the board of county commissioners. Such request must be filed within fourteen (14) days of the issuance of the written decision by the board of county commissioners and must specify deficiencies in the decision of the board of county commissioners. Filing a timely request for reconsideration is a prerequisite to the city having standing to file a petition with the district court. The county shall act on and issue a written decision on the request for reconsideration within thirty (30) days of receipt of the request or the request shall be deemed denied. A petition challenging the decision of the county must be filed by the city within twenty-eight (28) days after the issuance of a decision by the county on the request for reconsideration or expiration of the thirty (30) day period for the county to act on the request.

(b) When filing a petition challenging the decision of the board of county commissioners with the clerk of the court, the petitioner shall pay a fee of one hundred dollars ($100), which fee shall be in full for all clerk's fees except the regular fees provided by law for appeals. The court shall fix a time for the hearing on the petition to be held no less than thirty (30) days and no more than ninety (90) days from the filing of the petition. The petitioner shall serve or cause to be served a copy of the petition and notice of the hearing on the board of county commissioners or county clerk and the mayor or city clerk of such other city whose area of impact boundary is in question pursuant to paragraph (a) of this subsection at least twenty (20) days before the date of the hearing.

(c) No petition, objection, or reply authorized under this subsection need be verified.

(d) The hearing on a petition filed pursuant to this subsection shall be held within the county in which the area of impact or portion thereof is situated. The regular district court reporter shall reduce to writing the testimony and evidence introduced in the same manner as in a trial of civil actions. The judge of the court, either before or after the hearing, may view the lands pertaining to the proposed area of impact, lands on the outside of the city or cities in the same vicinity in which the lands sought to be included in the area of impact are situated, and other lands within the corporate limits of the city that might in any way be affected by the granting of the petition. The judge may consider such modifications as the judge finds in connection with the evidence introduced at the hearing, in making and arriving at a final decision and determination of the matter.

(e)(i) If the court finds that the board of county commissioners did not follow the notice and hearing requirements provided in this subsection, the court shall remand the matter back to the board of county commissioners to comply with the requirements and issue a new decision. If the court finds that the decision of the board of county commissioners was not arbitrary, capricious, or an abuse of discretion, the court shall affirm the decision of the board of commissioners. If the court finds that the decision of the board of county commissioners was arbitrary, capricious, or an abuse of discretion, the court may remand the matter to the board of county commissioners to correct its decision or the court may determine the appropriate boundaries of the area of impact in question before it. It shall not be necessary for the judge of the court to make written findings of fact or conclusions of law unless the court establishes the area of impact boundary. The court may award attorney's fees and costs to the prevailing party in such an action only if it finds that the other party or parties acted without a reasonable basis in fact or law.

(ii) If the court establishes the area of impact boundary, such boundary shall become the area of impact boundary as of the date of the decree establishing the boundary. Within twenty (20) days after the filing of the decree, the petitioner shall file or cause to be filed with the county recorder and with the city clerk a certified copy of the decree. The board of county commissioners shall adopt an ordinance consistent with the court decree within thirty (30) days of the entry of the decree or be subject to contempt and other sanctions or actions deemed appropriate by the court.

(f) Any city or county aggrieved by the decision of the court may appeal from the decision and judgment to the supreme court. The procedure of the appeal shall be the same as the procedure for appeals from final judgment in civil actions.

(6) Cities and counties shall review their existing areas of impact and shall reestablish the areas in conformance with the provisions of this section by December 31, 2025. Failure to timely conduct such review and reestablishment shall nullify the current area of impact boundaries and require the city and county to go through the process set forth in subsection (2) of this section.

History:

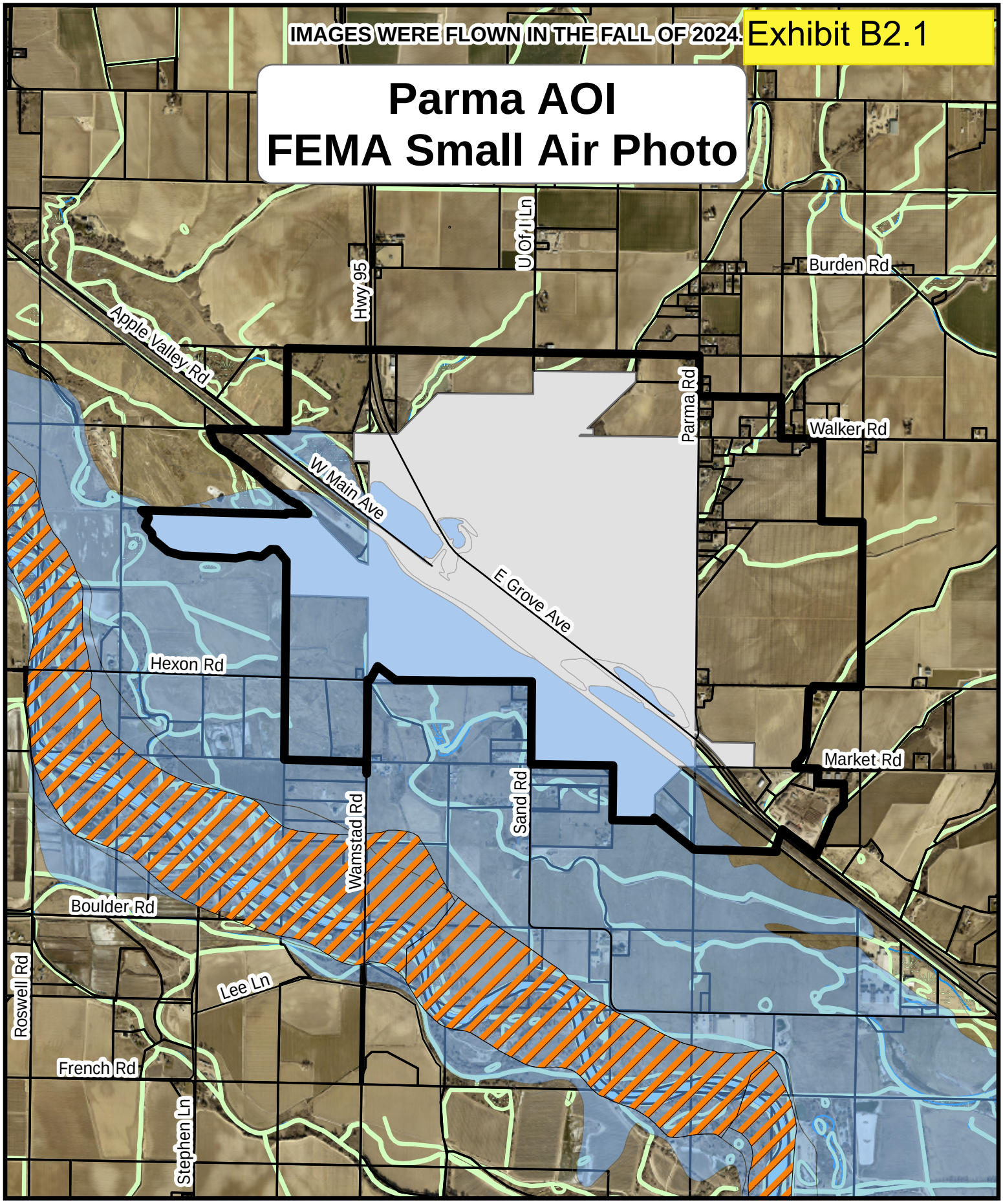
[67-6526, added 1975, ch. 188, sec. 2, p. 515; am. 1977, ch. 155, sec. 1, p. 396; am. 1979, ch. 87, sec. 1, p. 212; am. 1993, ch. 55, sec. 1, p. 150; am. 1995, ch. 118, sec. 97, p. 506; am. 1996, ch. 116, sec. 2, p. 428; am. 1999, ch. 251, sec. 1, p. 651; am. 2002, ch. 333, sec. 6, p. 947.; am. 2024, ch. 227, sec. 2, p. 796.]

How current is this law?

IMAGES WERE FLOWN IN THE FALL OF 2024.

Exhibit B2.1

Parma AOI
FEMA Small Air Photo



Legend

- SUBJECT_PROPERTY
- TAXLOTS
- WETLANDS
- A
- AE
- X

0.5 0 0.5 Miles

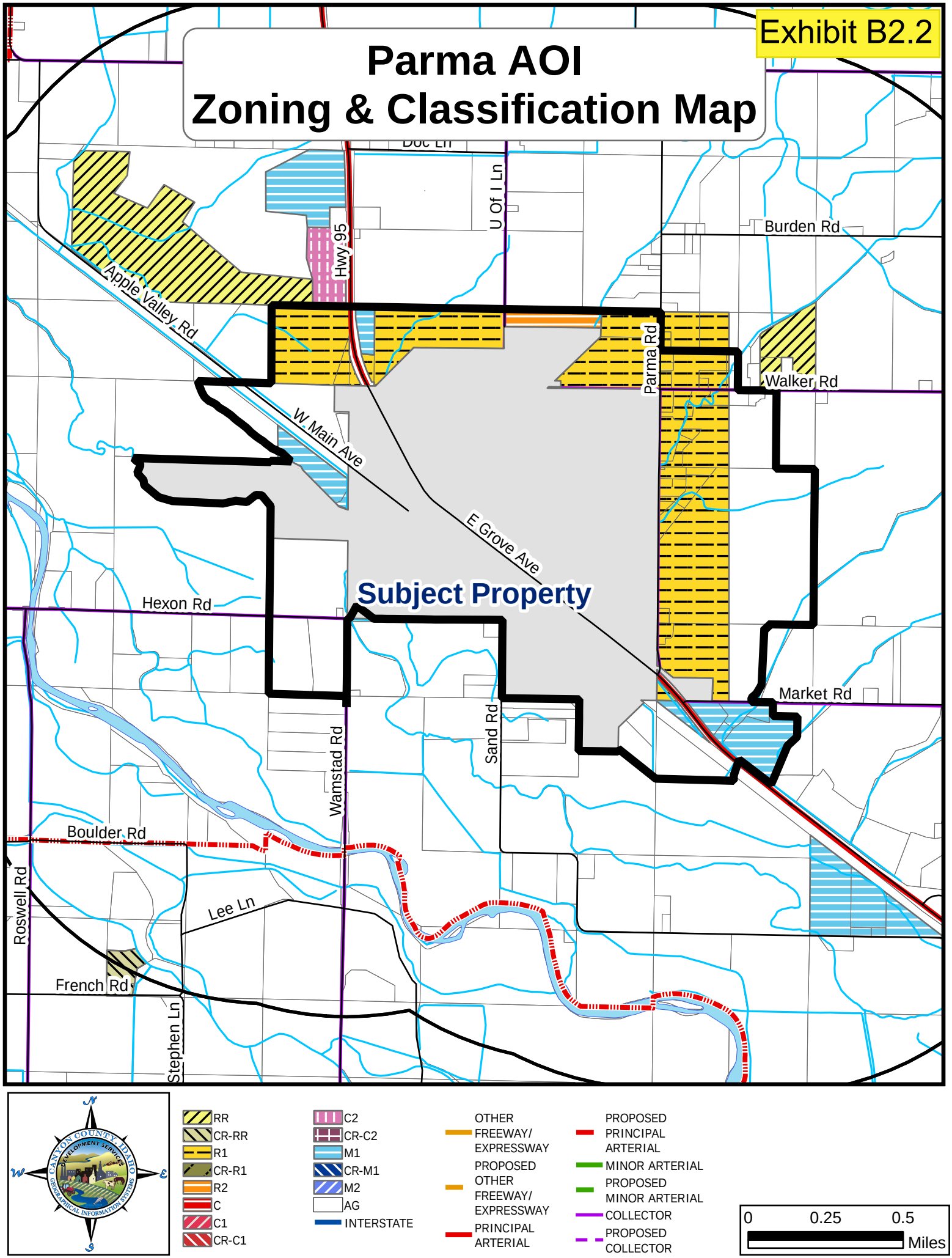
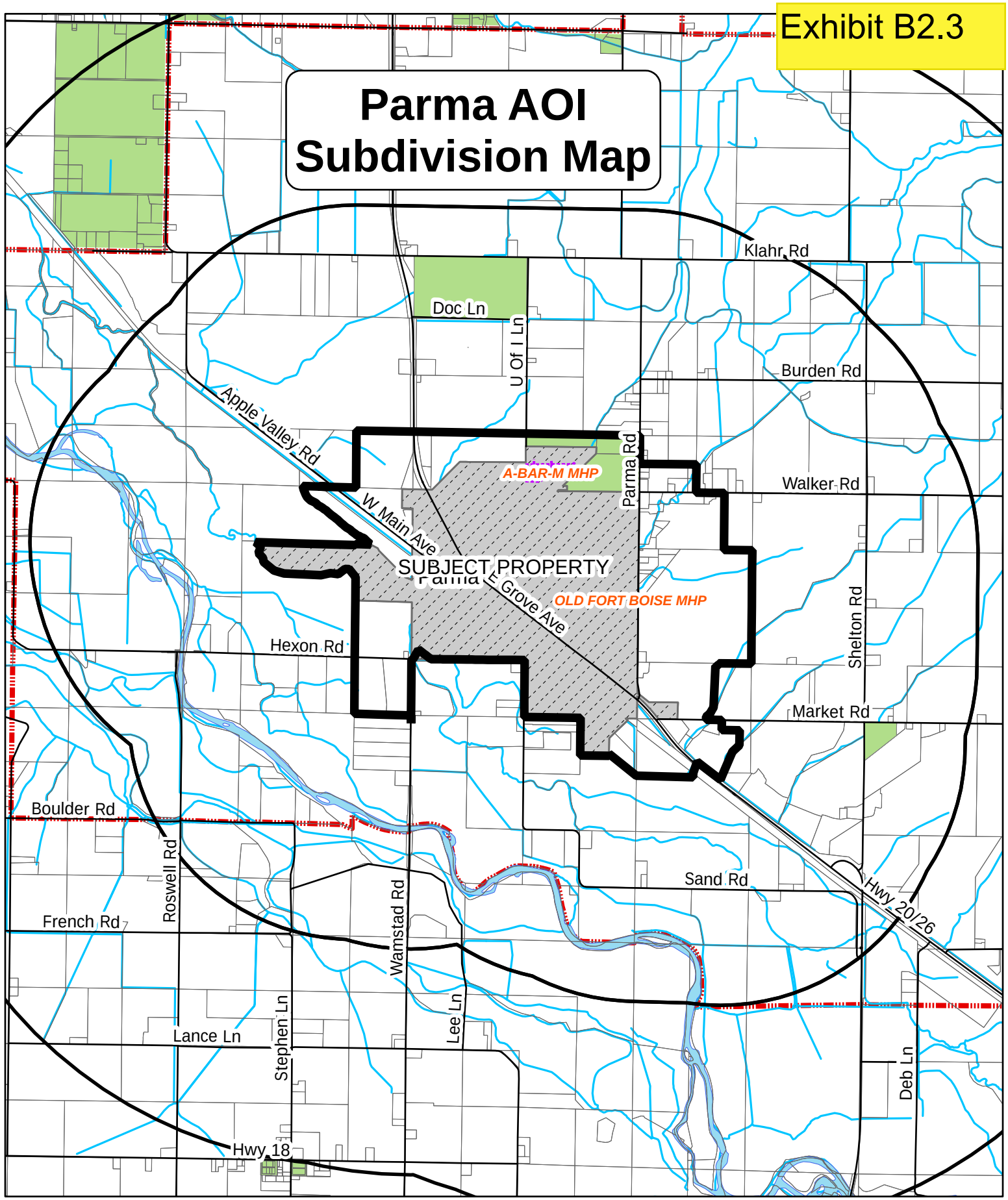


Exhibit B2.2
Parma AOI
Zoning & Classification Map
Doc Ln
U Of I Ln
Burden Rd
Hwy 95
Apple Valley Rd
Parma Rd
Walker Rd
W Main Ave
E Grove Ave
Subject Property
Hexon Rd
Market Rd
Sand Rd
Wamstad Rd
Boulder Rd
Roswell Rd
Lee Ln
French Rd
Stephen Ln
RR
CR-RR
R1
CR-R1
R2
C
C1
CR-C1
C2
CR-C2
M1
CR-M1
M2
AG
INTERSTATE
OTHER FREEWAY/ EXPRESSWAY
PROPOSED OTHER FREEWAY/ EXPRESSWAY
PRINCIPAL ARTERIAL
PROPOSED PRINCIPAL ARTERIAL
MINOR ARTERIAL
PROPOSED MINOR ARTERIAL
COLLECTOR
PROPOSED COLLECTOR
0
0.25
0.5
Miles

Exhibit B2.3

Parma AOI Subdivision Map



SUBDIVISIONS

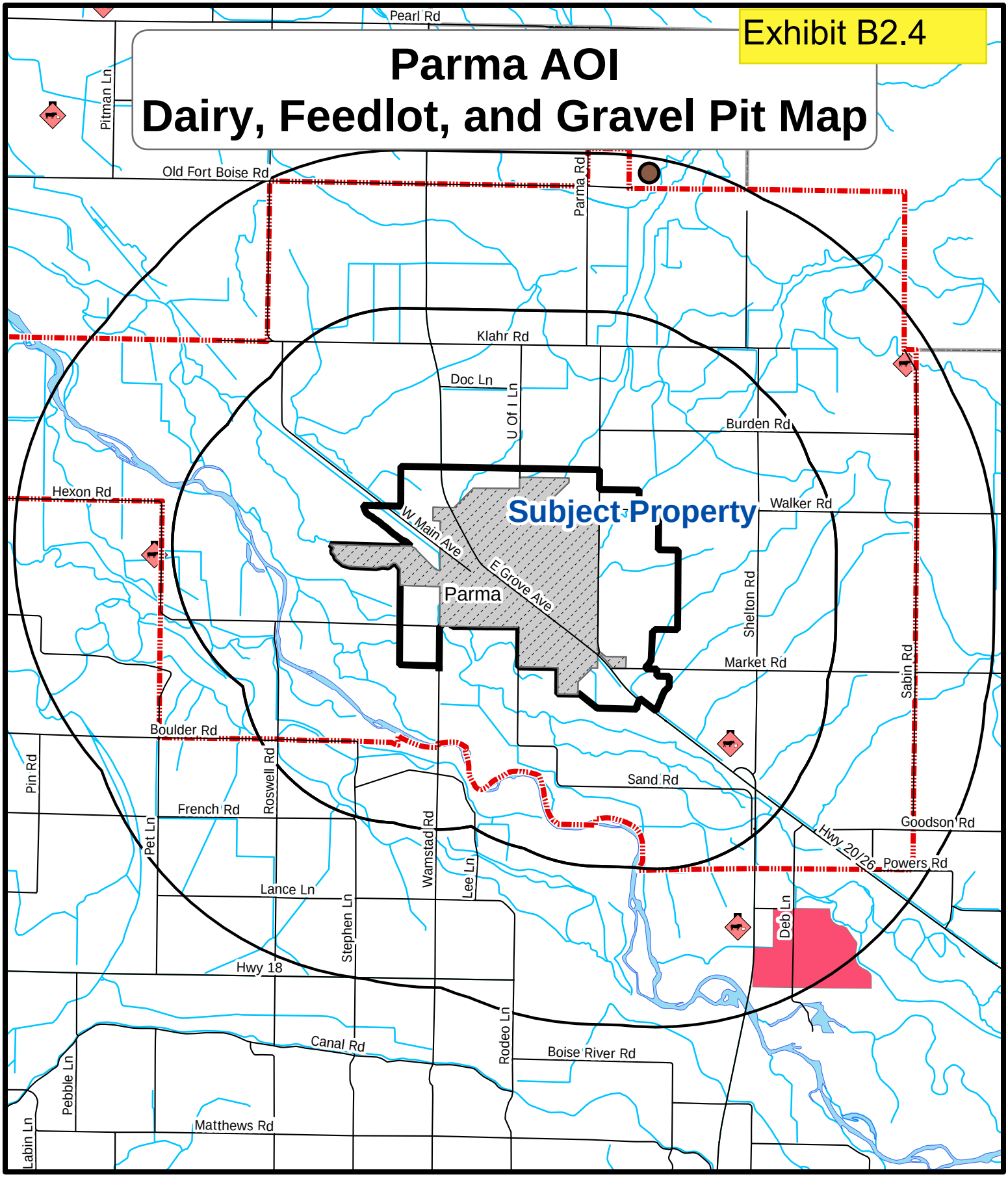
Plat Type,Plat Status

- Preliminary,Approved
- Preliminary,Pending
- MOBILE HOME PARKS

0 0.5 1 Miles

Exhibit B2.4

Parma AOI
Dairy, Feedlot, and Gravel Pit Map

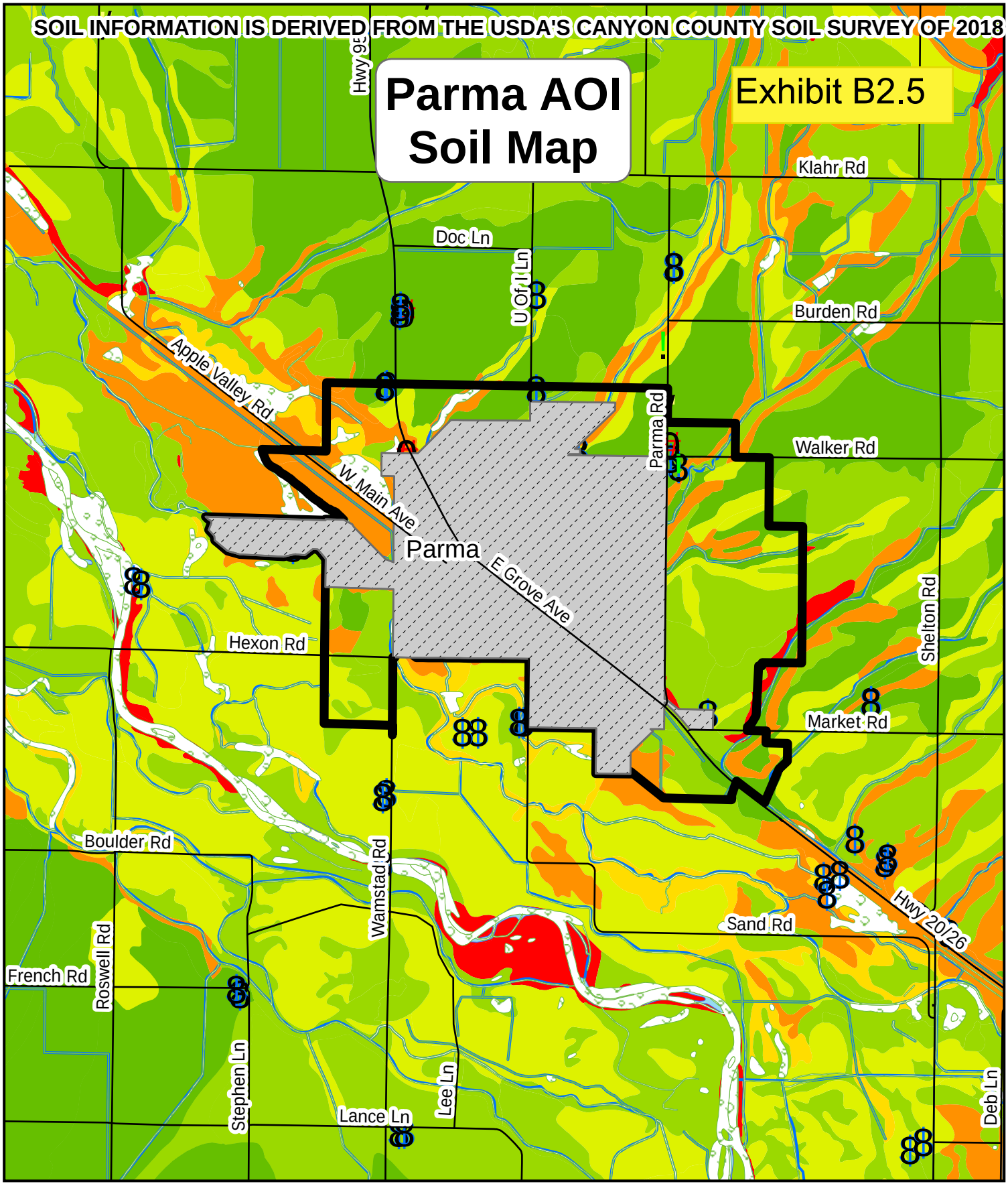


FEEDLOTS

DAIRIES

GRAVELPITS

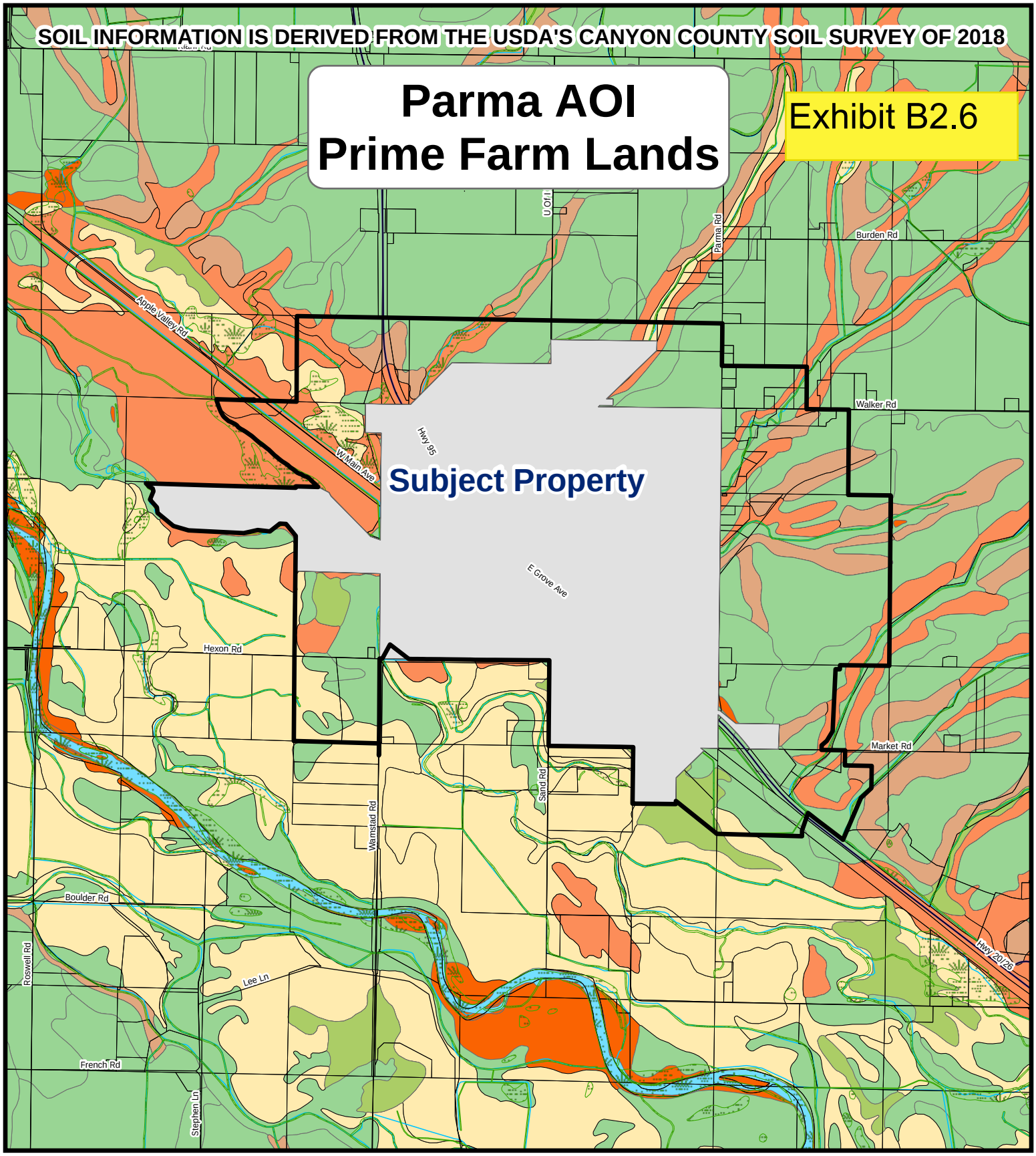
0 1 2 Miles


SOIL INFORMATION IS DERIVED FROM THE USDA'S CANYON COUNTY SOIL SURVEY OF 2018
Parma AOI
Soil Map
Exhibit B2.5
Hwy 95
Klahr Rd
Doc Ln
U Of I Ln
Burden Rd
Apple Valley Rd
Parma Rd
Walker Rd
W Main Ave
Parma
E Grove Ave
Shelton Rd
Hexon Rd
Market Rd
Boulder Rd
Wamstad Rd
Hwy 20/26
Sand Rd
French Rd
Roswell Rd
Stephen Ln
Lee Ln
Lance Ln
Deb Ln
Nitrate Priority Wells
0.005000 - 2.000000
2.000001 - 5.000000
5.000001 - 10.000000
10.000001 - 49.800000
IDWR_2C_Geothermal_
Wetlands
0
0.25
0.5
Miles

SOIL INFORMATION IS DERIVED FROM THE USDA'S CANYON COUNTY SOIL SURVEY OF 2018

Parma AOI
Prime Farm Lands

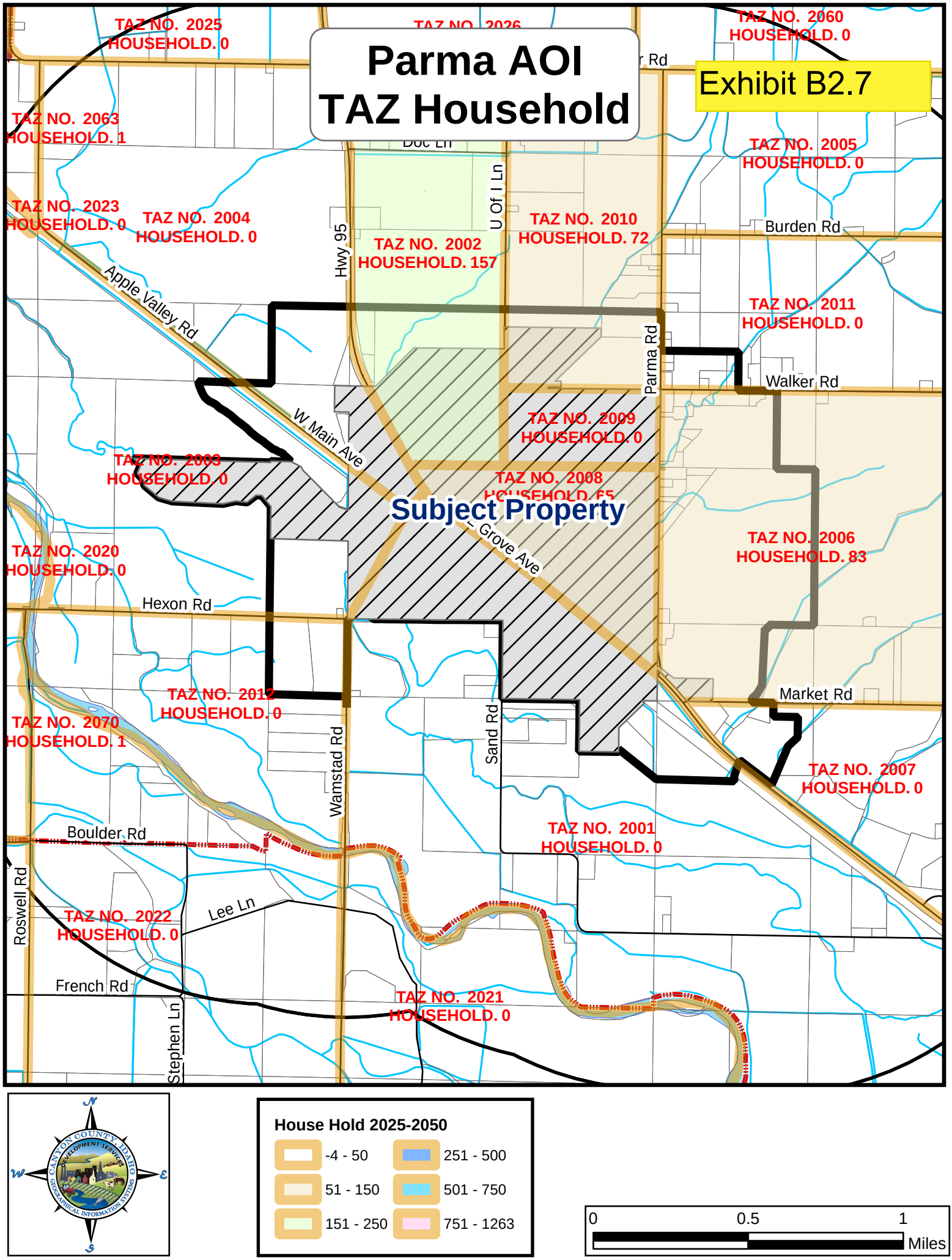
Exhibit B2.6

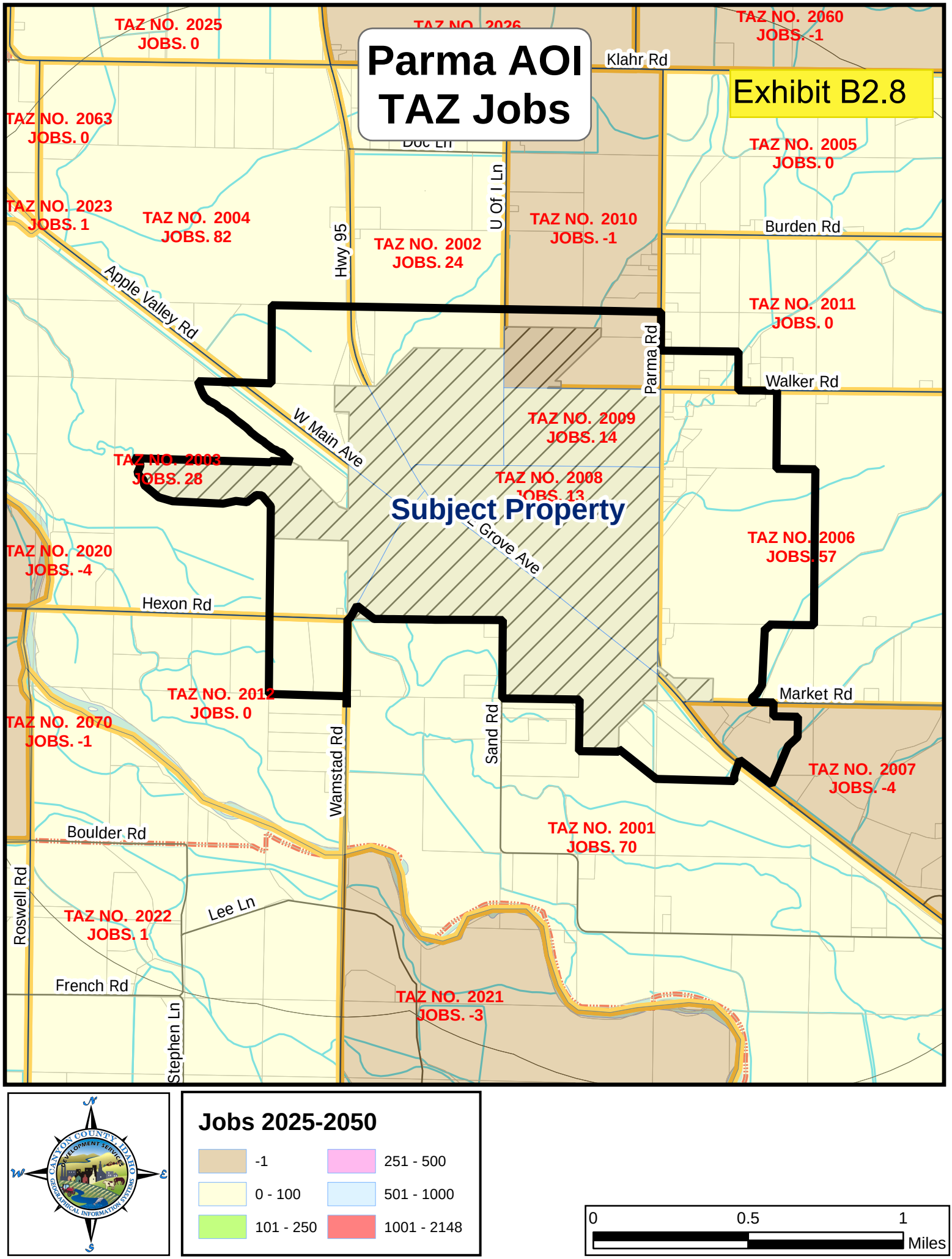


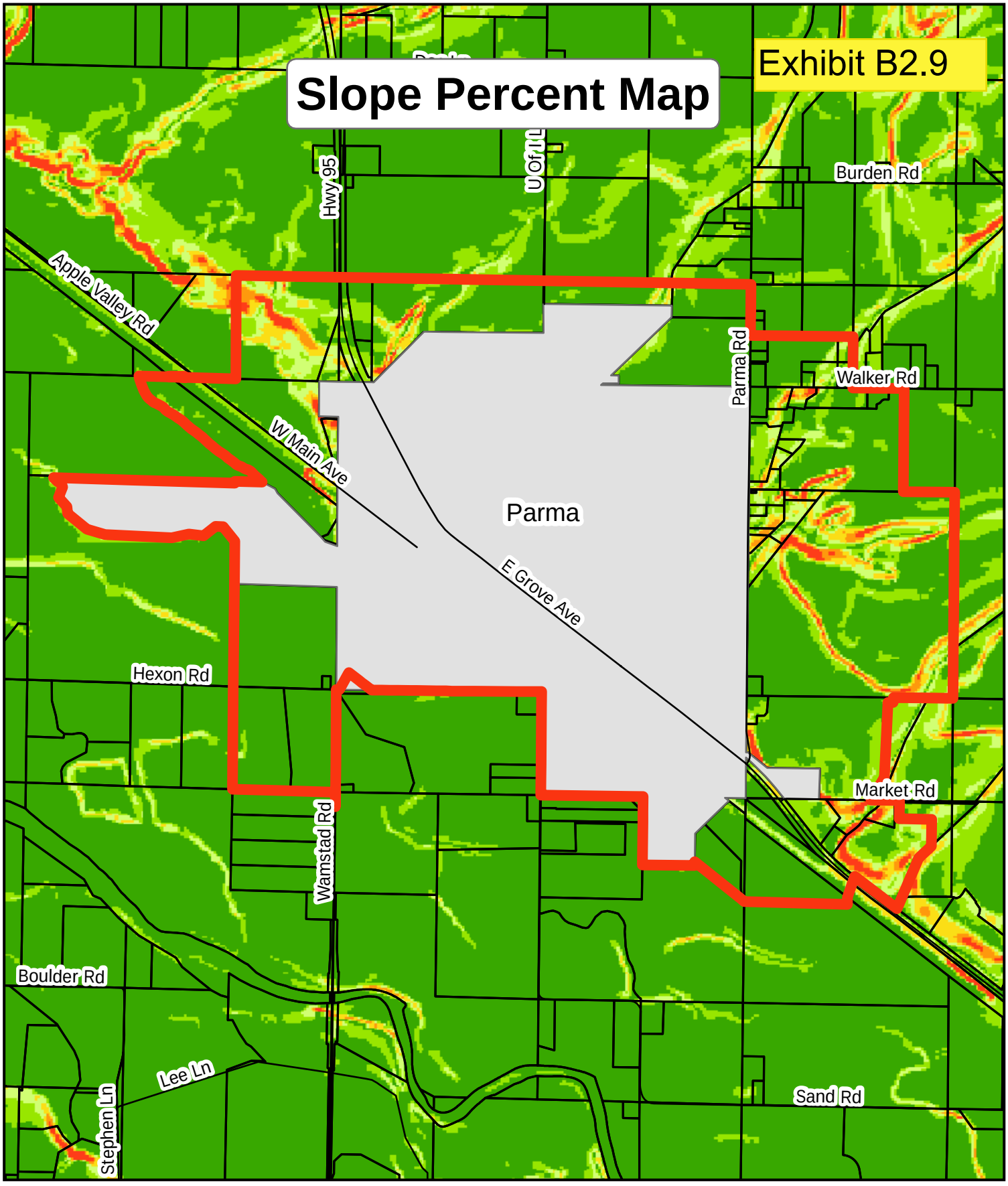
TAXLOTS
City_Limits
WETLANDS
2C_Hydro

FARMLAND
- Farmland of statewide importance
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Not prime farmland
- Water/Gravel Pit/ Rock outcrop/ Riverwash/ Terrace Escarpments
- Prime farmland if irrigated
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and reclaimed of excess salts and sodium

0 0.125 0.25
Miles


Parma AOI
TAZ Household
Exhibit B2.7
TAZ NO. 2025
HOUSEHOLD. 0
TAZ NO. 2060
HOUSEHOLD. 0
TAZ NO. 2063
HOUSEHOLD. 1
TAZ NO. 2005
HOUSEHOLD. 0
TAZ NO. 2023
HOUSEHOLD. 0
TAZ NO. 2004
HOUSEHOLD. 0
TAZ NO. 2002
HOUSEHOLD. 157
TAZ NO. 2010
HOUSEHOLD. 72
TAZ NO. 2011
HOUSEHOLD. 0
TAZ NO. 2009
HOUSEHOLD. 0
TAZ NO. 2003
HOUSEHOLD. 0
TAZ NO. 2008
Subject Property
TAZ NO. 2020
HOUSEHOLD. 0
TAZ NO. 2006
HOUSEHOLD. 83
TAZ NO. 2012
HOUSEHOLD. 0
TAZ NO. 2070
HOUSEHOLD. 1
TAZ NO. 2007
HOUSEHOLD. 0
TAZ NO. 2001
HOUSEHOLD. 0
TAZ NO. 2022
HOUSEHOLD. 0
TAZ NO. 2021
HOUSEHOLD. 0
Hwy 95
U Of I Ln
Burden Rd
Apple Valley Rd
W Main Ave
Parma Rd
Walker Rd
E Grove Ave
Hexon Rd
Market Rd
Wamstad Rd
Sand Rd
Boulder Rd
Roswell Rd
Lee Ln
French Rd
Stephen Ln
House Hold 2025-2050
-4 - 50
51 - 150
151 - 250
251 - 500
501 - 750
751 - 1263
0
0.5
1
Miles


Parma AOI
TAZ Jobs
Exhibit B2.8
TAZ NO. 2025
JOBS. 0
TAZ NO. 2060
JOBS. -1
Klahr Rd
TAZ NO. 2063
JOBS. 0
Doc Ln
TAZ NO. 2005
JOBS. 0
TAZ NO. 2023
JOBS. 1
TAZ NO. 2004
JOBS. 82
Hwy 95
U Of I Ln
TAZ NO. 2010
JOBS. -1
Burden Rd
TAZ NO. 2002
JOBS. 24
Apple Valley Rd
TAZ NO. 2011
JOBS. 0
Parma Rd
Walker Rd
W Main Ave
TAZ NO. 2009
JOBS. 14
TAZ NO. 2003
JOBS. 28
TAZ NO. 2008
JOBS. 13
Subject Property
E Grove Ave
TAZ NO. 2006
JOBS. 57
TAZ NO. 2020
JOBS. -4
Hexon Rd
TAZ NO. 2012
JOBS. 0
Market Rd
TAZ NO. 2070
JOBS. -1
Wamstad Rd
Sand Rd
TAZ NO. 2007
JOBS. -4
Boulder Rd
TAZ NO. 2001
JOBS. 70
Roswell Rd
Lee Ln
TAZ NO. 2022
JOBS. 1
French Rd
TAZ NO. 2021
JOBS. -3
Stephen Ln
Jobs 2025-2050
-1
0 - 100
101 - 250
251 - 500
501 - 1000
1001 - 2148
0
0.5
1
Miles


Slope Percent Map
Exhibit B2.9
Hwy 95
U Of I L
Burden Rd
Apple Valley Rd
Parma Rd
Walker Rd
W Main Ave
Parma
E Grove Ave
Hexon Rd
Market Rd
Wamstad Rd
Boulder Rd
Lee Ln
Stephen Ln
Sand Rd
Slope Percent
0.001 - 3
3.001 - 6
6.001 - 9
9.001 - 12
12.001 - 14.999
15 - 202.718
0
0.25
0.5
0.75
Miles

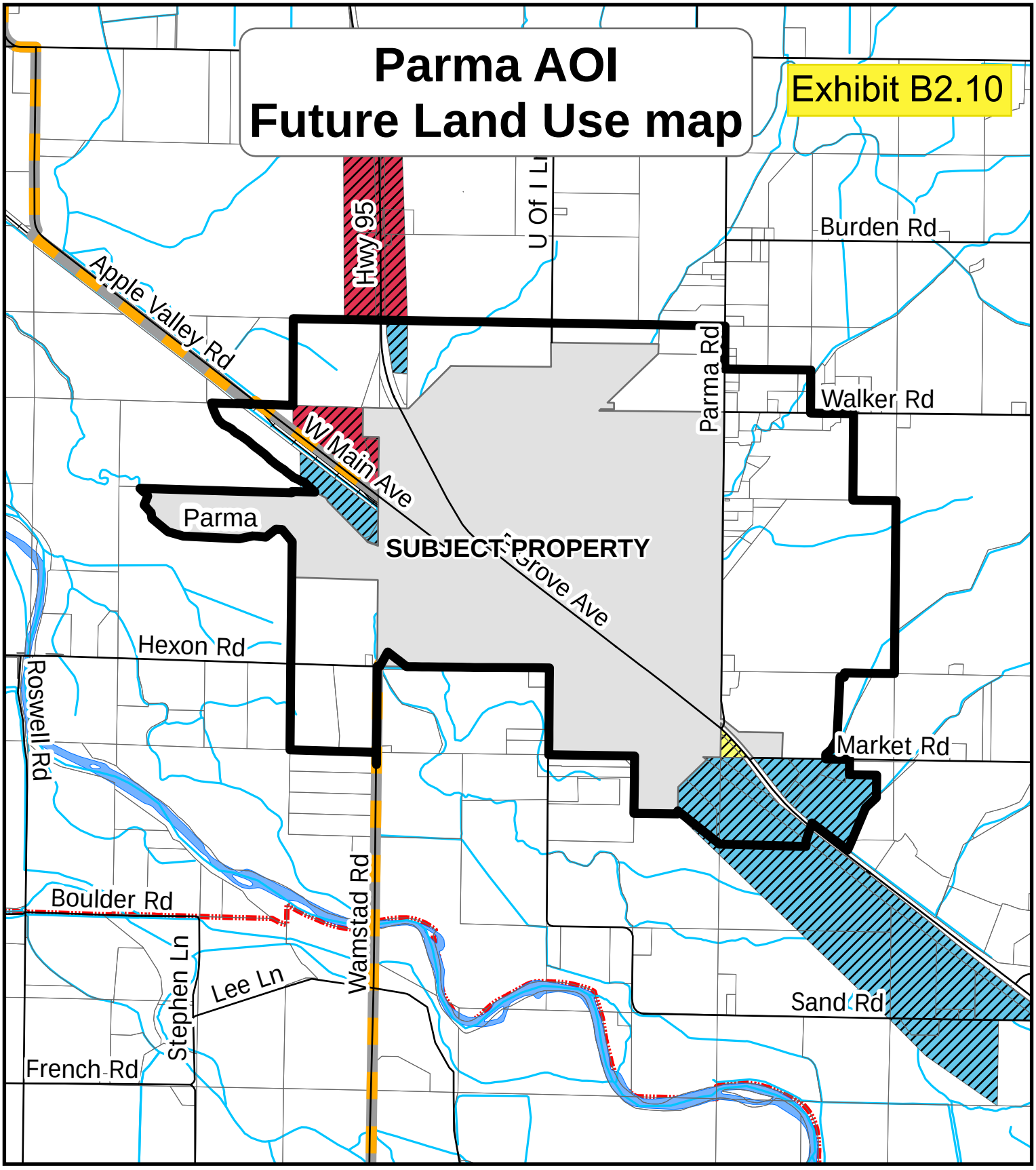
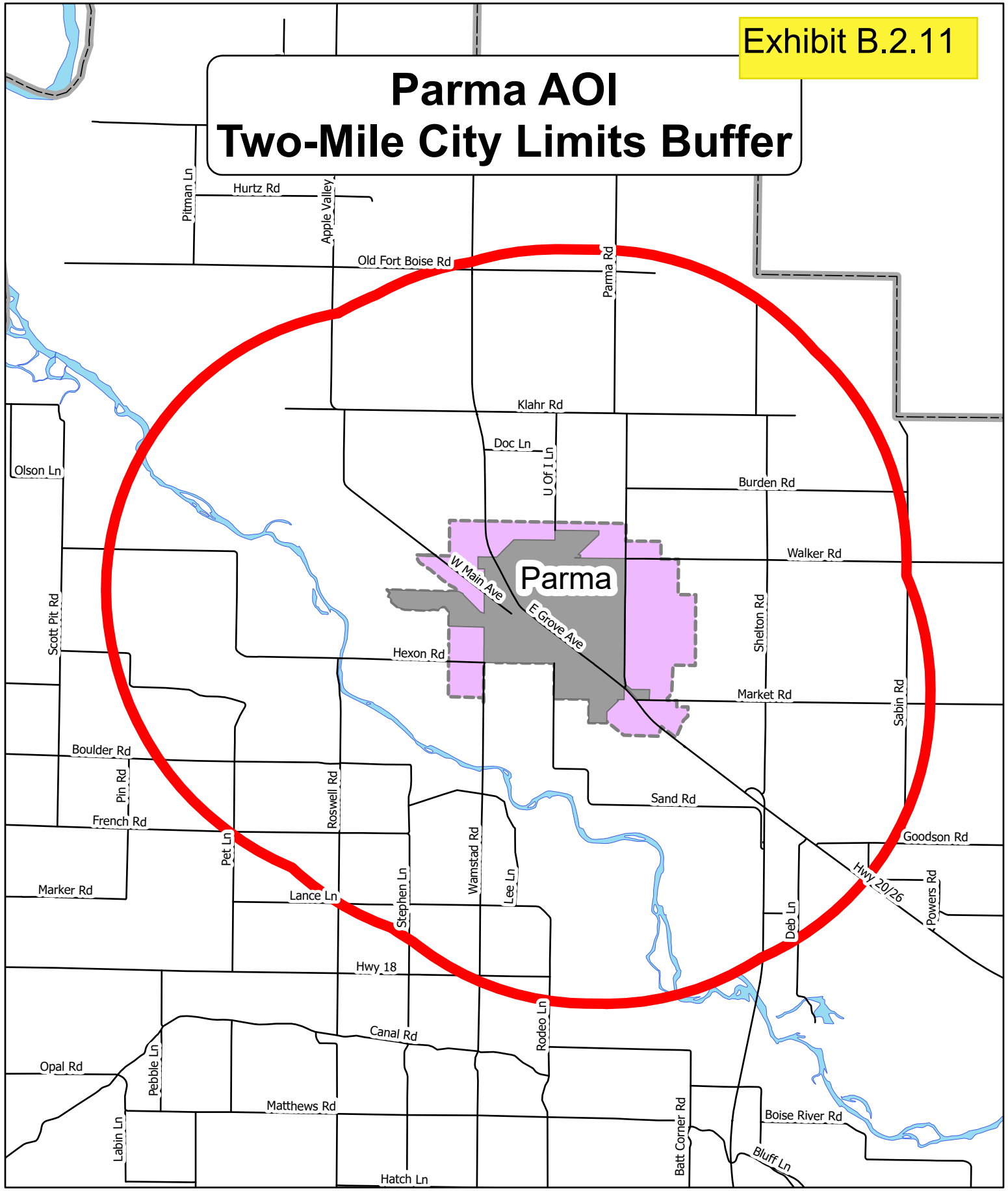

Parma AOI
Future Land Use map
Exhibit B2.10
Hwy 95
U Of I Li
Burden Rd
Apple Valley Rd
Parma Rd
Walker Rd
W Main Ave
Parma
SUBJECT PROPERTY
Grove Ave
Hexon Rd
Roswell Rd
Market Rd
Boulder Rd
Wamstad Rd
Stephen Ln
Lee Ln
Sand Rd
French Rd
Legend
Future Land Use 2030
COMMERCIAL
INDUSTRIAL
RESIDENTIAL
0
0.5
1
Miles

Exhibit B.2.11

Parma AOI
Two-Mile City Limits Buffer

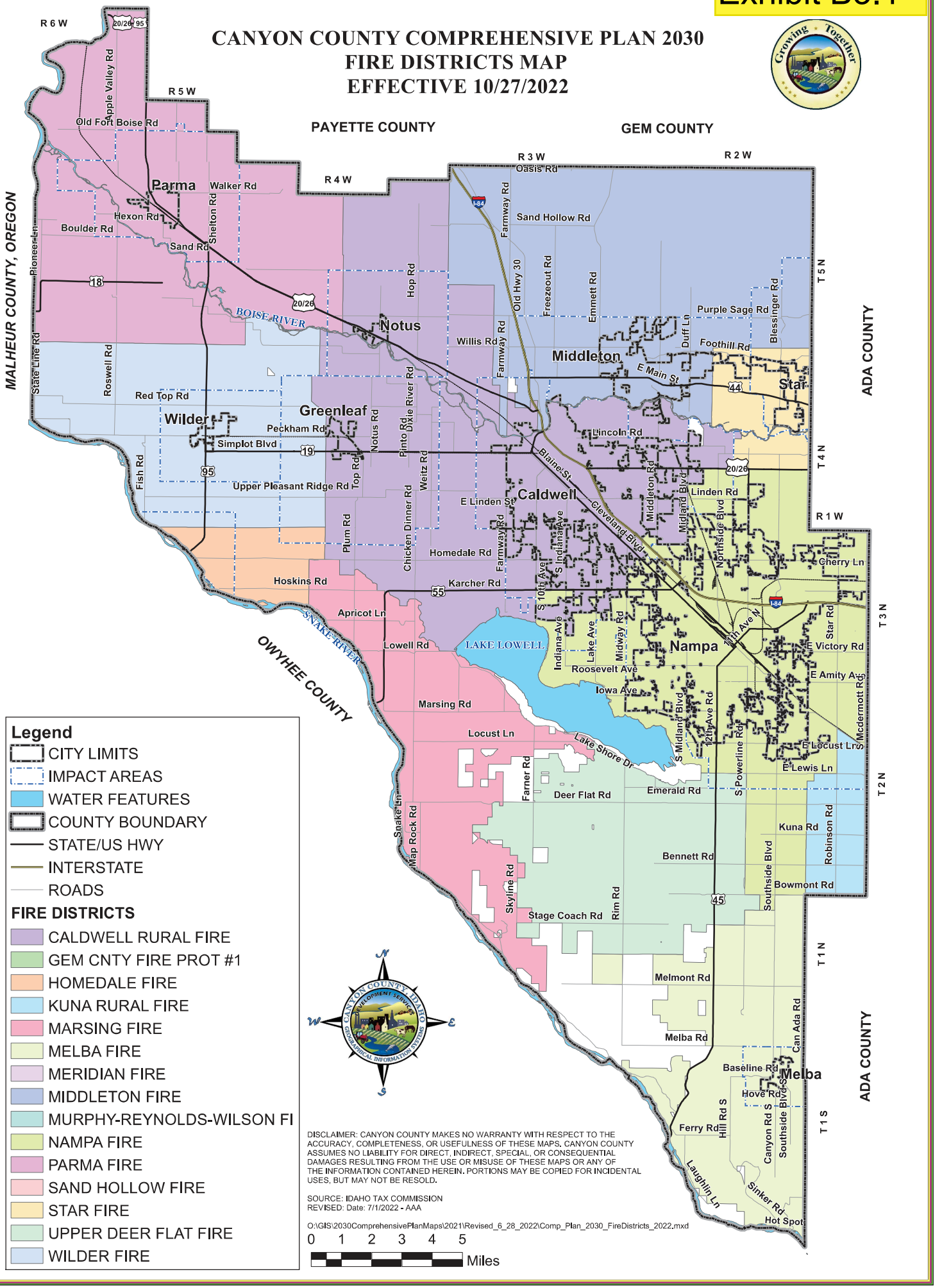


2 Mile Buffer from City Limits
Proposed Impact Areas
City Limits

0 1 2 Miles

Exhibit B3.1

CANYON COUNTY COMPREHENSIVE PLAN 2030
FIRE DISTRICTS MAP
EFFECTIVE 10/27/2022



Legend

- CITY LIMITS
- IMPACT AREAS
- WATER FEATURES
- COUNTY BOUNDARY
- STATE/US HWY
- INTERSTATE
- ROADS

FIRE DISTRICTS

- CALDWELL RURAL FIRE
- GEM CNTY FIRE PROT #1
- HOMEDALE FIRE
- KUNA RURAL FIRE
- MARSING FIRE
- MELBA FIRE
- MERIDIAN FIRE
- MIDDLETON FIRE
- MURPHY-REYNOLDS-WILSON FI
- NAMPA FIRE
- PARMA FIRE
- SAND HOLLOW FIRE
- STAR FIRE
- UPPER DEER FLAT FIRE
- WILDER FIRE

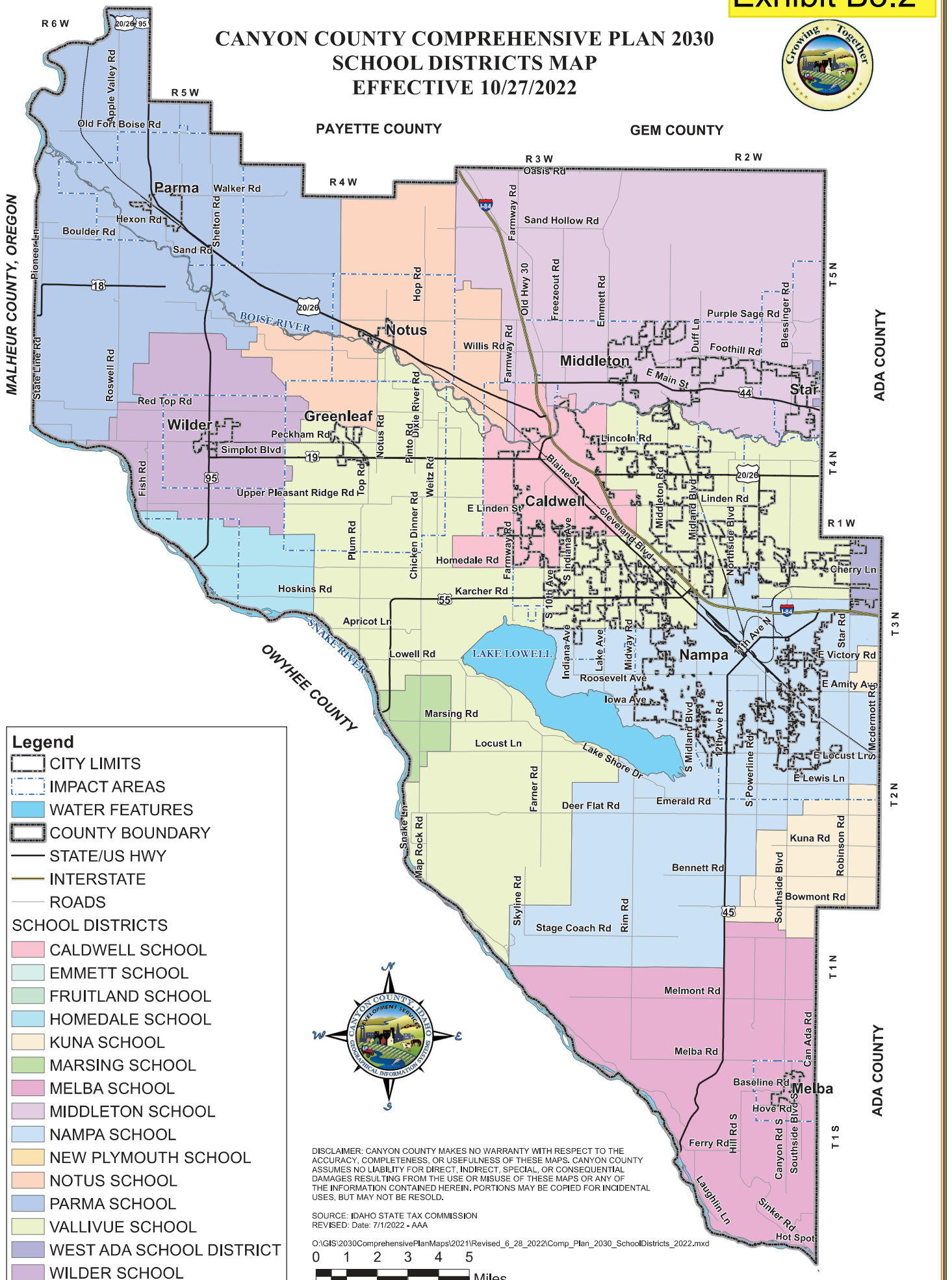
SOURCE: IDAHO TAX COMMISSION
REVISED: Date: 7/1/2022 - AAA

O:\GIS\2030ComprehensivePlanMaps\2021\Revised_6_28_2022\Comp_Plan_2030_FireDistricts_2022.mxd

0 1 2 3 4 5
Miles

Exhibit B3.2

CANYON COUNTY COMPREHENSIVE PLAN 2030
SCHOOL DISTRICTS MAP
EFFECTIVE 10/27/2022



Legend

- CITY LIMITS
- IMPACT AREAS
- WATER FEATURES
- COUNTY BOUNDARY
- STATE/US HWY
- INTERSTATE
- ROADS

SCHOOL DISTRICTS

- CALDWELL SCHOOL
- EMMETT SCHOOL
- FRUITLAND SCHOOL
- HOMEDALE SCHOOL
- KUNA SCHOOL
- MARSING SCHOOL
- MELBA SCHOOL
- MIDDLETON SCHOOL
- NAMPA SCHOOL
- NEW PLYMOUTH SCHOOL
- NOTUS SCHOOL
- PARMA SCHOOL
- VALLIVUE SCHOOL
- WEST ADA SCHOOL DISTRICT
- WILDER SCHOOL

SOURCE: IDAHO STATE TAX COMMISSION
REVISED: Date: 7/1/2022 - AAA

O:\GIS\2030ComprehensivePlanMaps\2021\Revised_6_28_2022\Comp_Plan_2030_SchoolDistricts_2022.mxd

0 1 2 3 4 5
Miles

EXHIBIT C

Agency Comments

Received By: September 26, 2025

Exhibit C.1

CERTIFICATE OF LEGAL NOTIFICATION

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT
111 North 11th Avenue, #310, Caldwell, ID 83605
Phone: 208-454-7458

CASE NAME: Parma AOI

CASE NO: OR2025-0013

HEARING BODY: Board of County Commissioners

I, Caitlin Ross, as the representative of Canyon County Development Services, hereby certify that on this 21st day of August, 2025, I mailed by regular first-class mail, or emailed, a true and correct copy of the notice attached hereto as Exhibit A to those referenced in Exhibit B in accordance with the requirements of the Canyon County Zoning Ordinance § 07-05-01.

- ☐ Agencies – Initial Notice for Comment
- ☐ JEPA / (City of Nampa)
- ☐ Agencies – 30 Day Notice of Hearing Date
- ☒ Full Political
- ☐ Property Owners

Signed: Caitlin Ross
(Signature of DSD staff who mailed/e-mailed notice)

Date Completed: 8/21/25

Development Services Department

Canyon County, 111 North 11th Avenue, Suite 310, Caldwell, ID 83605

Administration : 208-402-4162 ▪ dsdadmin@canyoncounty.id.gov ▪ www.canyoncounty.id.gov

August 21, 2025

Dear Agencies:

Your agency is being notified pursuant to the Local Land Use Planning Act, Idaho Code 67-6509, to all political subdivisions providing services within the planning jurisdiction of Canyon County, including school districts and media.

Pursuant to the Local Land Use Planning Act, Idaho Code §67-6509, §67-6511, and §67-6512, as applicable, your agency is being notified of an upcoming **Board of County Commissioner's public hearing** for the following land use case:

Case No. OR2025-0013: The applicant, City of Parma, represented by Jacob Qualls, is requesting an ordinance update to amend chapter 9, article 15, section 11, of Canyon County Code of Ordinance to modify the existing area of city impact boundaries for the City of Parma, to comply with Idaho Code 67-6526. The subject properties are located within Parma's existing area of impact. The application and map can be found at www.canyoncounty.id.gov/land-hearings/ under Ordinance Updates.

To provide comments, please respond by ***September 26, 2025.*** If the comment deadline is on a weekend or holiday, it will move to close of business 5pm the next business day. *Comments received by the due date will be added to the Staff Report and to the hearing body's packet. Your agency's comments are an important part of our decision-making process.* Please visit https://www.canyoncounty.id.gov/land-hearings/ for hearing details.

Contact the **AOI TEAM** at aoiupdate@canyoncounty.id.gov or 208-455-6033 with any questions or additional agency comments or concerns if applicable.

Respectfully,

Caitlin Ross

Caitlin Ross
Hearing Specialist
Canyon County DSD

EXHIBIT A

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT
111 N. 11TH Ave. Ste 310 • Caldwell, Idaho 83605
Phone (208) 454-7458 • ZoningInfo@canyoncounty.id.gov

EXHIBIT tabbies B

LEGAL NOTICE TRANSMITTAL

Case #: OR2025-0013 Transmittal Date: August 21, 2025 Planner: Michelle Barron / AOI Team

Applicant: City of Parma Applicant's Representative: Jacob Qualls

☐ P&Z ☐ Hearing Examiner ☐ BOCC

JEPA: _____ ☒ FULL POLITICAL

City
- ☒ Caldwell
- ☒ Greenleaf
- ☒ Homedale
- ☒ Marsing
- ☒ Melba
- ☒ Middleton
- ☒ Nampa
- ☒ Notus
- ☒ Parma
- ☒ Star
- ☒ Wilder

School District
- ☒ Caldwell
- ☒ CWI
- ☒ Homedale
- ☒ Kuna
- ☒ Liberty Charter HC
- ☒ Marsing
- ☒ Melba
- ☒ Meridian/West Ada
- ☒ Middleton
- ☒ Nampa
- ☒ Notus
- ☒ Parma
- ☒ Vallivue
- ☒ Wilder

☒ **Southwest District Health**

Fire District
- ☒ Caldwell
- ☒ Homedale
- ☒ Kuna
- ☒ Marsing
- ☒ Melba
- ☒ Middleton
- ☒ Nampa Fire Dept
- ☒ Parma
- ☒ Star
- ☒ Upper Deer Flat
- ☒ Wilder
- ☒ State Fire Marshal

Highway District
- ☒ Highway District 4
- ☒ Golden Gate
- ☒ Nampa
- ☒ Notus-Parma

Library District
- ☒ Kuna
- ☒ Lizard Butte
- ☒ Wilder HC

Utilities
- ☒ CenturyLink
- ☒ Intermountain Gas
- ☒ Idaho Power
- ☒ Ziply Fiber

Irrigation, Drain & Flood Districts
- ☒ Black Canyon Irrigation Dist.
- ☒ Boise-Kuna Irrigation Dist.
- ☒ Boise Project Board of Control
- ☒ Caldwell Water & Sewer HC
- ☒ Canyon County Water Co.
- ☒ Canyon Hill Irrigation District
- ☒ Eureka Irrigation District HC
- ☒ Farmer Cooperative Ditch Co.
- ☒ Farmers Union Ditch Co.
- ☒ Franklin Ditch Co.
- ☒ Lower Center Point HC
- ☒ Mason Creek Ditch Co. HC
- ☒ Middleton Mill Ditch/Irrigation
- ☒ Nampa – Meridian
- ☒ New York
- ☒ Pioneer
- ☒ Pioneer Dixie Ditch
- ☒ Poor Boy Ditch HC
- ☒ Riverside Irrigation District
- ☒ Riverside Ditch
- ☒ Settlers Irrigation
- ☒ Siebenberg Co-op Ditch
- ☒ Star Sewer & Water
- ☒ Wilder Irrigation
- ☒ Drainage Ditch 2
- ☒ Drainage Ditch 3
- ☒ Drainage Ditch 4
- ☒ Drainage Ditch 6

- ☒ Flood District 10
- ☒ Flood District 11

Transportation
- ☒ ACHD
- ☒ Brown Bus Company
- ☒ Caldwell Transportation HC
- ☒ COMPASS
- ☒ Idaho Transportation Dept
- ☒ Valley Regional Transit

Emergency Services
- ☒ Canyon County Sheriff
- ☒ Emergency Mgmt. Coordinator
- ☒ CC Paramedics / EMT
- ☒ Homedale City Ambulance
- ☒ Marsing Ambulance HC
- ☒ Melba Quick Response HC
- ☒ Nampa Police Department

Other
- ☒ Farm Service Agency HC
- ☒ Fire Code Consultants Northwest
- ☒ Greater Middleton Area Rec
- ☒ Melba Gopher District HC
- ☒ Mosquito Abatement
- ☒ Natural Resource Conservation Dist.
- ☒ Ten-Davis Recreation
- ☒ Destination Caldwell
- ☒ Marathon Pipeline LLC
- ☒ Owyhee County, Dir of Planning
- ☒ US Postal Service _____
- ☒ Cemetery Wilder HC
- ☒ Media _____
- ☒ ID State Archaeologist & Director HC
- ☒ West Valley Humane Society HC

Canyon County
- ☒ CC Animal Control
- ☒ CC Assessor's Office
- ☒ CC Elections
- ☒ CC Farm Bureau
- ☒ CC Historical Society
- ☒ CC Parks & Recreation
- ☒ CC Soil Conservation District
- ☒ CC Weed & Gopher Control

Canyon County
- ☒ CC DSD Building Dept.
- ☒ CC DSD Code Enforcement
- ☒ CC DSD Engineering
- ☒ CC DSD GIS Department
- ☒ CC DSD Floodplain Manager

Government
- ☒ Bureau of Land Management
- ☒ Bureau of Reclamation
- ☒ Deer Flat Natl Wildlife Refuge
- ☒ ID Agricultural Aviation Association
- ☒ Environmental Protection Agency
- ☒ US Army Corps of Engineers

Government
- ☒ FEMA
- ☒ US Department of Agriculture
- ☒ ID Dept of Water Resources/floodplain
- ☒ ID Dept of Water Resources/water rights
- ☒ Idaho Fish & Game
- ☒ Idaho State Dept of Agriculture
- ☒ Dept of Environmental Quality
- ☒ Dept of Lands/SW Area Mgr. HC
- ☒ Energy and Mineral Resources

Caitlin Ross

From: Caitlin Ross
Sent: Thursday, August 21, 2025 8:53 AM
To: 'rcollins@cityofcaldwell.org'; 'P&Z@cityofcaldwell.org'; 'dgeyer@cityofcaldwell.org'; 'jdodson@cityofcaldwell.org'; 'mbessaw@cityofcaldwell.org'; 'amy@civildynamics.net'; 'alicep@cityofhomedale.org'; 'jgreen@marsingcity.com'; 'mayor@cityofmelba.org'; 'cityclerk@cityofmelba.org'; 'jhutchison@middletoncity.org'; 'mhobbs@middletoncity.org'; 'rstewart@middletoncity.org'; 'sellersr@cityofnampa.us'; 'watkinsk@cityofnampa.us'; 'BadgerD@cityofnampa.us'; 'addressing@cityofnampa.us'; 'critchfieldd@cityofnampa.us'; 'clerks@cityofnampa.us'; 'timc@cityofnampa.us'; 'notuscityclerk@gmail.com'; 'clerk@cityofparmaidaho.org'; 'mayor@cityofparmaidaho.org'; 'publicworks@cityofparmaidaho.org'; 'cityhalladmin@cityofparmaidaho.org'; 'snickel@staridaho.org'; 'jmckillican@cityofwilder.org'; 'kbagley@cityofwilder.org'; 'casanderson@caldwellschools.org'; 'nicmiller@cwi.edu'; 'ddenney@homedaleschools.org'; 'bgraves@kunaschools.org'; 'tejensen@kunaschools.org'; 'nstewart@marsingschools.org'; 'sadams@melbaschools.org'; 'Horner.Marci@westada.org'; 'lgrooms@msd134.org'; 'mgee@msd134.org'; 'cstauffer@nsd131.org'; 'dleon@nsd131.org'; 'krantza@notusschools.org'; 'tkelly@parmaschools.org'; 'jenny.titus@vallivue.org'; 'lisa.boyd@vallivue.org'; 'joseph.palmer@vallivue.org'; 'jdillon@wilderschools.org'; 'lrichard@cityofcaldwell.org'; 'aperry@cityofcaldwell.org'; 'homedalefd@gmail.com'; 'tlawrence@kunafire.com'; 'Office@KunaFire.com'; 'marsingfiredistrict@yahoo.com'; 'marsingruralfire@gmail.com'; 'brian.mccormack@melbafire.id.gov'; 'kenny.hoagland@melbafire.id.gov'; 'vislas@starfirerescue.org'; 'permits@starfirerescue.org'; 'eddy@heritagewifi.com'; 'johnsonrl@nampafire.org'; 'prevention@nampafire.org'; 'Jeff@parmafire.us'; 'ParmaRuralFire@gmail.com'; 'permits@starfirerescue.org'; 'eddy@heritagewifi.com'; 'wfdchief@wilderfire.org'; 'jmaloney@wilderfire.org'; 'knute.sandahl@doi.idaho.gov'; 'chopper@hwydistrict4.org'; 'lriccio@hwydistrict4.org'; 'bobw@gghd3.org'; 'office@gghd3.org'; 'eddy@nampahighway1.com'; 'gwatkins@nphd.net'; 'admin1@kunalibrary.org'; 'admin2@kunalibrary.org'; 'lizardbuttelibrary@yahoo.com'; 'brandy.walker@centurylink.com'; 'eingram@idahopower.com'; 'easements@idahopower.com'; 'arobins@idahopower.com'; 'monica.taylor@intgas.com'; 'jessica.mansell@intgas.com'; 'Contract.Administration.Bid.Box@ziply.com'; 'developmentreview@blackcanyonirrigation.com'; 'carl@blackcanyonirrigation.com'; 'dpopoff@rh2.com'; 'aflavel.bkirrdist@gmail.com'; 'tritthaler@boiseproject.org'; 'gashley@boiseproject.org'; 'irr.water.3@gmail.com'; 'kchamberlain.fcdc@gmail.com'; 'office@idcpas.com'; 'fcdc1875@gmail.com'; 'farmers.union.ditch@gmail.com'; 'irr.water.3@gmail.com'; 'wilders04@msn.com'; 'irrigation.mm.mi@gmail.com'; 'tammy.middletonirrigation@gmail.com'; 'nmid@nmid.org'; 'eolvera@nmid.org'; 'nyirrigation@nyid.org'; 'kirk@pioneerirrigation.com'; 'sheepmama25@gmail.com'; 'fcdc1875@gmail.com'; 'fcdc1875@gmail.com'; 'Mack@settlersirrigation.org'; 'kchamberlain.fcdc@gmail.com'; 'mitch.kiester@phd3.idaho.gov'; 'anthony.lee@phd3.idaho.gov'; 'wilderirrigation10@gmail.com'; 'drain.dist.2@gmail.com'; 'bryce@sawtoothlaw.com'; 'scott_sbi@outlook.com'; 'scott_sbi@outlook.com'; 'farmerhouston@gmail.com'; 'projectmgr@boiseriver.org'; 'scott_sbi@outlook.com'; 'testrada@starswd.com'; 'jlucas@achdidaho.org'; 'clittle@achdidaho.org'; 'brentc@brownbuscompany.com'; 'gis@compassidaho.org'; 'D3Development.services@itd.idaho.gov'; 'niki.benyakhlef@itd.idaho.gov'; 'ITDD3PERMITS@ITD.IDAHO.GOV'; 'Airport.Planning@itd.idaho.gov';

To: 'webmaster@valleyregionaltransit.org'; 'smm5156@gmail.com'; 'deb0815@yahoo.com'; 'kunacemetery@gmail.com'; '3tjj@frontiernet.net'; 'melbacemetery@gmail.com'; 'middletoncemdist13@gmail.com'; 'ann_jacops@hotmail.com'; 'prchuston@gmail.com'; Brian Crawforth; Christine Wendelsdorf; Michael Stowell; 'tryska7307@gmail.com'; Curt Shankel; Dalia Alnajjar; Lucy Ostyn; Tom Crosby; Code Enforcement; GIS and Addressing Division; Diana Little; Loretta Tweedy; Assessor Website; Elections Clerk; 'roger@amgidaho.com'; Nichole Schwend; Chelsee Boehm; Nichole Schwend; Rick Britton; 'middletown.rich@gmail.com'; Jim Lunders; 'jshoemaker@blm.gov'; 'MGRodriguez@usbr.gov'; 'edward_owens@fws.gov'; 'BRO.Admin@deq.idaho.gov'; 'kenny.huston@oer.idaho.gov'; 'Brenna.Garro@oer.idaho.gov'; 'peter.jackson@idwr.idaho.gov'; 'maureen.oshea@idwr.idaho.gov'; 'file@idwr.idaho.gov'; 'smith.carolyn.d@epa.gov'; 'John.Graves@fema.dhs.gov'; 'idahoaaa@gmail.com'; 'Zlathim@IDL.idaho.gov'; 'brandon.flack@idfg.idaho.gov'; 'Aubrie.Hunt@dhw.idaho.gov'; 'tricia.canaday@ishs.idaho.gov'; 'dan.everhart@ishs.idaho.gov'; 'patricia.hoffman@ishs.idaho.gov'; 'stevie.harris@isda.idaho.gov'; 'laura.johnson@isda.idaho.gov'; 'tate.walters@id.usda.gov'; 'shawn.cafferty@usda.gov'; 'noe.ramirez@usda.gov'; 'cenww-rd-boi-tv@usace.army.mil'; 'laura.j.freedman@usps.gov'; 'Rakesh.N.Dewan@usps.gov'; 'Chad.M.Franklin@usps.gov'; 'Melvin.B.Norton@usps.gov'; 'Tammi.L.Barth@usps.gov'; 'henry.medel@usps.gov'; 'Khrista.M.Holman@usps.gov'; 'Rochelle.Fuquay@usps.gov'; 'leroy.eyler@usps.gov'; 'marc.c.boyer@usps.gov'; 'mhuff@co.owyhee.id.us'; 'gmprdjennifer@gmail.com'; 'lisaitano@me.com'; 'scott@fccnw.com'; 'srcsbinfo@gmail.com'; 'tottens@amsidaho.com'; 'melvin.b.norton@usps.gov'; 'scott.hauser@usrtf.org'; 'info@destinationcaldwell.com'; 'makline2@marathonpetroleum.com'; 'news@kboi2.com'; 'news@kivitv.com'; 'ktvbnews@ktvb.com'; '670@kboi.com'; Newsroom; 'middletonexpress1@gmail.com'; 'rmorgan@kellerassociates.com'

Subject: Legal Notice OR2025-0013 / Parma AOI

Attachments: NEW - BOCC Rezone full political agency notice.pdf

Dear Agencies,

Your agency is being notified pursuant to the Local Land Use Planning Act, Idaho Code 67-6509, to all political subdivisions providing services within the planning jurisdiction of Canyon County, including school districts and media.

No response is required from your agency unless you have input on the proposed project.

Contact the **AOI TEAM** at aoiupdate@canyoncounty.id.gov with any questions or additional agency comments or concerns if applicable.

Thank you,

Caitlin Ross
Hearing Specialist
Canyon County Development Services Department
111 N. 11th Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-7463
Email: Caitlin.Ross@canyoncounty.id.gov
Website: www.canyoncounty.id.gov

Development Services Department (DSD)
NEW public office hours
Effective Jan. 3, 2023
Monday, Tuesday, Thursday and Friday
8am – 5pm
Wednesday
1pm – 5pm
**We will not be closed during lunch hour **

PUBLIC RECORD NOTICE: All communications transmitted within the Canyon County email system may be a public record and may be subject to disclosure under the Idaho Public Records Act and as such may be copied and reproduced by members of the public.

Exhibit C.2

Michelle Barron

From: BRO Admin <BRO.Admin@deq.idaho.gov>
Sent: Monday, August 25, 2025 10:55 AM
To: AOI Update
Cc: Jennifer Lahmon
Subject: [External] RE: Legal Notice OR2025-0013 / Parma AOI

The Boise Regional DEQ Administration has no comments at this time.

Sincerely,

Carlene Oberg
Administrative Assistant I
Idaho Department of Environmental Quality
1445 North Orchard Street Boise, Idaho 83706
P: (208) 373-0550 | www.deq.idaho.gov

From: Caitlin Ross <Caitlin.Ross@canyoncounty.id.gov>
Sent: Thursday, August 21, 2025 8:53 AM
To: 'rcollins@cityofcaldwell.org' <rcollins@cityofcaldwell.org>; 'P&Z@cityofcaldwell.org' <P&Z@cityofcaldwell.org>; 'dgeyer@cityofcaldwell.org' <dgeyer@cityofcaldwell.org>; 'jdodson@cityofcaldwell.org' <jdodson@cityofcaldwell.org>; mbessaw@cityofcaldwell.org; 'amy@civildynamics.net' <amy@civildynamics.net>; 'alicep@cityofhomedale.org' <alicep@cityofhomedale.org>; 'jgreen@marsingcity.com' <jgreen@marsingcity.com>; 'mayor@cityofmelba.org' <mayor@cityofmelba.org>; 'cityclerk@cityofmelba.org' <cityclerk@cityofmelba.org>; 'jhutchison@middletoncity.org' <jhutchison@middletoncity.org>; 'mhobbs@middletoncity.org' <mhobbs@middletoncity.org>; 'rstewart@middletoncity.org' <rstewart@middletoncity.org>; 'sellersr@cityofnampa.us' <sellersr@cityofnampa.us>; 'watkinsk@cityofnampa.us' <watkinsk@cityofnampa.us>; 'BadgerD@cityofnampa.us' <BadgerD@cityofnampa.us>; 'addressing@cityofnampa.us' <addressing@cityofnampa.us>; 'critchfieldd@cityofnampa.us' <critchfieldd@cityofnampa.us>; 'clerks@cityofnampa.us' <clerks@cityofnampa.us>; 'timc@cityofnampa.us' <timc@cityofnampa.us>; 'notuscityclerk@gmail.com' <notuscityclerk@gmail.com>; 'clerk@cityofparmaidaho.org' <clerk@cityofparmaidaho.org>; 'mayor@cityofparmaidaho.org' <mayor@cityofparmaidaho.org>; 'publicworks@cityofparmaidaho.org' <publicworks@cityofparmaidaho.org>; 'cityhalladmin@cityofparmaidaho.org' <cityhalladmin@cityofparmaidaho.org>; 'snickel@staridaho.org' <snickel@staridaho.org>; 'jmckillican@cityofwilder.org' <jmckillican@cityofwilder.org>; 'kbagley@cityofwilder.org' <kbagley@cityofwilder.org>; 'casanderson@caldwellschools.org' <casanderson@caldwellschools.org>; 'nicmiller@cwi.edu' <nicmiller@cwi.edu>; ddenney@homedaleschools.org; 'bgraves@kunaschools.org' <bgraves@kunaschools.org>; tejensen@kunaschools.org; 'nstewart@marsingschools.org' <nstewart@marsingschools.org>; 'sadams@melbaschools.org' <sadams@melbaschools.org>; 'Horner.Marci@westada.org' <Horner.Marci@westada.org>; 'lgrooms@msd134.org' <lgrooms@msd134.org>; 'mgee@msd134.org' <mgee@msd134.org>; 'cstauffer@nsd131.org' <cstauffer@nsd131.org>; 'dleon@nsd131.org' <dleon@nsd131.org>; 'krantza@notusschools.org' <krantza@notusschools.org>; 'tkelly@parmaschools.org' <tkelly@parmaschools.org>; 'jenny.titus@vallivue.org' <jenny.titus@vallivue.org>; 'lisa.boyd@vallivue.org' <lisa.boyd@vallivue.org>; 'joseph.palmer@vallivue.org' <joseph.palmer@vallivue.org>; 'jdillon@wilderschools.org' <jdillon@wilderschools.org>; 'lrichard@cityofcaldwell.org' <lrichard@cityofcaldwell.org>; Alan Perry <aperry@cityofcaldwell.org>; 'homedalefd@gmail.com' <homedalefd@gmail.com>; 'tlawrence@kunafire.com' <tlawrence@kunafire.com>; 'Office@KunaFire.com' <Office@KunaFire.com>; 'marsingfiredistrict@yahoo.com' <marsingfiredistrict@yahoo.com>; 'marsingruralfire@gmail.com'

<marsingruralfire@gmail.com>; 'brian.mccormack@melbafire.id.gov' <brian.mccormack@melbafire.id.gov>; 'kenny.hoagland@melbafire.id.gov' <kenny.hoagland@melbafire.id.gov>; 'vislas@starfirerescue.org' <vislas@starfirerescue.org>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'eddy@heritagewifi.com' <eddy@heritagewifi.com>; 'johnsonrl@nampafire.org' <johnsonrl@nampafire.org>; 'prevention@nampafire.org' <prevention@nampafire.org>; 'Jeff@parmafire.us' <Jeff@parmafire.us>; 'ParmaRuralFire@gmail.com' <ParmaRuralFire@gmail.com>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'eddy@heritagewifi.com' <eddy@heritagewifi.com>; 'wfdchief@wilderfire.org' <wfdchief@wilderfire.org>; 'jmaloney@wilderfire.org' <jmaloney@wilderfire.org>; Knute Sandahl <Knute.Sandahl@doi.idaho.gov>; 'chopper@hwydistrict4.org' <chopper@hwydistrict4.org>; 'lriccio@hwydistrict4.org' <lriccio@hwydistrict4.org>; 'bobw@gghd3.org' <bobw@gghd3.org>; 'office@gghd3.org' <office@gghd3.org>; 'eddy@nampahighway1.com' <eddy@nampahighway1.com>; 'gwatkins@nphd.net' <gwatkins@nphd.net>; 'admin1@kunalibrary.org' <admin1@kunalibrary.org>; 'admin2@kunalibrary.org' <admin2@kunalibrary.org>; lizardbuttelibrary@yahoo.com; 'brandy.walker@centurylink.com' <brandy.walker@centurylink.com>; 'eingram@idahopower.com' <eingram@idahopower.com>; 'easements@idahopower.com' <easements@idahopower.com>; 'arobins@idahopower.com' <arobins@idahopower.com>; 'monica.taylor@intgas.com' <monica.taylor@intgas.com>; 'jessica.mansell@intgas.com' <jessica.mansell@intgas.com>; 'Contract.Administration.Bid.Box@ziply.com' <Contract.Administration.Bid.Box@ziply.com>; 'developmentreview@blackcanyonirrigation.com' <developmentreview@blackcanyonirrigation.com>; 'carl@blackcanyonirrigation.com' <carl@blackcanyonirrigation.com>; 'dpopoff@rh2.com' <dpopoff@rh2.com>; 'aflavel.bkirrdist@gmail.com' <aflavel.bkirrdist@gmail.com>; 'tritthaler@boiseproject.org' <tritthaler@boiseproject.org>; 'gashley@boiseproject.org' <gashley@boiseproject.org>; 'irr.water.3@gmail.com' <irr.water.3@gmail.com>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; 'office@idcpas.com' <office@idcpas.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'farmers.union.ditch@gmail.com' <farmers.union.ditch@gmail.com>; 'irr.water.3@gmail.com' <irr.water.3@gmail.com>; 'wilders04@msn.com' <wilders04@msn.com>; 'irrigation.mm.mi@gmail.com' <irrigation.mm.mi@gmail.com>; 'tammy.middletonirrigation@gmail.com' <tammy.middletonirrigation@gmail.com>; 'nmid@nmid.org' <nmid@nmid.org>; 'eolvera@nmid.org' <eolvera@nmid.org>; 'nyirrigation@nyid.org' <nyirrigation@nyid.org>; 'kirk@pioneerirrigation.com' <kirk@pioneerirrigation.com>; 'sheepmama25@gmail.com' <sheepmama25@gmail.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'Mack@settlersirrigation.org' <Mack@settlersirrigation.org>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; Mitch Kiester <mitch.kiester@phd3.idaho.gov>; 'anthony.lee@phd3.idaho.gov' <anthony.lee@phd3.idaho.gov>; 'wilderirrigation10@gmail.com' <wilderirrigation10@gmail.com>; 'drain.dist.2@gmail.com' <drain.dist.2@gmail.com>; 'bryce@sawtoothlaw.com' <bryce@sawtoothlaw.com>; 'scott_sbi@outlook.com' <scott_sbi@outlook.com>; 'scott_sbi@outlook.com' <scott_sbi@outlook.com>; 'farmerhouston@gmail.com' <farmerhouston@gmail.com>; projectmgr <projectmgr@boiseriver.org>; 'scott_sbi@outlook.com' <scott_sbi@outlook.com>; testrada@starswd.com; 'jlucas@achdidaho.org' <jlucas@achdidaho.org>; 'clittle@achdidaho.org' <clittle@achdidaho.org>; 'brentc@brownbuscompany.com' <brentc@brownbuscompany.com>; 'gis@compassidaho.org' <gis@compassidaho.org>; 'D3Development.services@itd.idaho.gov' <D3Development.services@itd.idaho.gov>; 'niki.benyakhlef@itd.idaho.gov' <niki.benyakhlef@itd.idaho.gov>; 'ITDD3PERMITS@ITD.IDAHO.GOV' <ITDD3PERMITS@ITD.IDAHO.GOV>; 'Airport.Planning@itd.idaho.gov' <Airport.Planning@itd.idaho.gov>; 'webmaster@valleyregionaltransit.org' <webmaster@valleyregionaltransit.org>; 'smm5156@gmail.com' <smm5156@gmail.com>; 'deb0815@yahoo.com' <deb0815@yahoo.com>; 'kunacemetery@gmail.com' <kunacemetery@gmail.com>; '3tjj@frontiernet.net' <3tjj@frontiernet.net>; 'melbacemetery@gmail.com' <melbacemetery@gmail.com>; 'middletoncemdist13@gmail.com' <middletoncemdist13@gmail.com>; 'ann_jacops@hotmail.com' <ann_jacops@hotmail.com>; 'prchuston@gmail.com' <prchuston@gmail.com>; Brian Crawforth <Brian.Crawforth@canyoncounty.id.gov>; Christine Wendelsdorf <Christine.Wendelsdorf@canyoncounty.id.gov>; Michael Stowell <mstowell@ccparamedics.com>; 'tryska7307@gmail.com' <tryska7307@gmail.com>; Curt Shankel <shankelc@cityofnampa.us>; Dalia Alnajjar <Dalia.Alnajjar@canyoncounty.id.gov>; Lucy Ostyn <lucy.ostyn@canyoncounty.id.gov>; Tom Crosby <Tom.Crosby@canyoncounty.id.gov>; Code Enforcement <CodeEnforcement@canyoncounty.id.gov>; GIS and Addressing Division <GISAddressing@canyoncounty.id.gov>; Diana Little <Diana.Little@canyoncounty.id.gov>; Loretta Tweedy <Loretta.Tweedy@canyoncounty.id.gov>; Assessor Website <2cAsr@canyoncounty.id.gov>; Elections Clerk <electionsclerk@canyoncounty.id.gov>; 'roger@amgidaho.com' <roger@amgidaho.com>; Nichole Schwend

<Nichole.Schwend@canyoncounty.id.gov>; Chelsee Boehm <Chelsee.Boehm@canyoncounty.id.gov>; Nichole Schwend <Nichole.Schwend@canyoncounty.id.gov>; Rick Britton <Rick.Britton@canyoncounty.id.gov>; 'middletown.rich@gmail.com' <middletown.rich@gmail.com>; Jim Lunders <jlunders@2cmad.org>; 'jshoemaker@blm.gov' <jshoemaker@blm.gov>; 'MGRodriguez@usbr.gov' <MGRodriguez@usbr.gov>; 'edward_owens@fws.gov' <edward_owens@fws.gov>; BRO Admin <BRO.Admin@deq.idaho.gov>; Kenny Huston <kenny.huston@oer.idaho.gov>; Brenna Garro <Brenna.Garro@oer.idaho.gov>; Jackson, Peter <Peter.Jackson@idwr.idaho.gov>; O'Shea, Maureen <Maureen.OShea@idwr.idaho.gov>; IDWR File <file@idwr.idaho.gov>; 'smith.carolyn.d@epa.gov' <smith.carolyn.d@epa.gov>; 'John.Graves@fema.dhs.gov' <John.Graves@fema.dhs.gov>; 'idahoaaa@gmail.com' <idahoaaa@gmail.com>; 'Zlathim@IDL.idaho.gov' <Zlathim@IDL.idaho.gov>; Flack,Brandon <brandon.flack@idfg.idaho.gov>; 'Aubrie.Hunt@dhw.idaho.gov' <Aubrie.Hunt@dhw.idaho.gov>; Tricia Canaday <Tricia.Canaday@ishs.idaho.gov>; Dan Everhart <Dan.Everhart@ishs.idaho.gov>; Patricia Hoffman <Patricia.Hoffman@ishs.idaho.gov>; Stevie Harris <Stevie.Harris@ISDA.IDAHO.GOV>; Laura Johnson <Laura.Johnson@ISDA.IDAHO.GOV>; 'tate.walters@id.usda.gov' <tate.walters@id.usda.gov>; 'shawn.cafferty@usda.gov' <shawn.cafferty@usda.gov>; 'noe.ramirez@usda.gov' <noe.ramirez@usda.gov>; 'cenww-rd-boi-tv@usace.army.mil' <cenww-rd-boi-tv@usace.army.mil>; 'laura.j.freedman@usps.gov' <laura.j.freedman@usps.gov>; 'Rakesh.N.Dewan@usps.gov' <Rakesh.N.Dewan@usps.gov>; 'Chad.M.Franklin@usps.gov' <Chad.M.Franklin@usps.gov>; 'Melvin.B.Norton@usps.gov' <Melvin.B.Norton@usps.gov>; 'Tammi.L.Barth@usps.gov' <Tammi.L.Barth@usps.gov>; 'henry.medel@usps.gov' <henry.medel@usps.gov>; 'Khrista.M.Holman@usps.gov' <Khrista.M.Holman@usps.gov>; 'Rochelle.Fuquay@usps.gov' <Rochelle.Fuquay@usps.gov>; 'leroy.eyler@usps.gov' <leroy.eyler@usps.gov>; 'marc.c.boyer@usps.gov' <marc.c.boyer@usps.gov>; 'mhuff@co.owyhee.id.us' <mhuff@co.owyhee.id.us>; 'gmprdjennifer@gmail.com' <gmprdjennifer@gmail.com>; 'lisaitano@me.com' <lisaitano@me.com>; 'scott@fccnw.com' <scott@fccnw.com>; 'srcsbinfo@gmail.com' <srcsbinfo@gmail.com>; 'tottens@amsidaho.com' <tottens@amsidaho.com>; 'melvin.b.norton@usps.gov' <melvin.b.norton@usps.gov>; 'scott.hauser@usrtf.org' <scott.hauser@usrtf.org>; 'info@destinationcaldwell.com' <info@destinationcaldwell.com>; 'makline2@marathonpetroleum.com' <makline2@marathonpetroleum.com>; 'news@kboi2.com' <news@kboi2.com>; 'news@kivitv.com' <news@kivitv.com>; 'ktvbnews@ktvb.com' <ktvbnews@ktvb.com>; '670@kboi.com' <670@kboi.com>; Newsroom <newsroom@idahopress.com>; 'middletonexpress1@gmail.com' <middletonexpress1@gmail.com>; 'rmorgan@kellerassociates.com' <rmorgan@kellerassociates.com>
Subject: Legal Notice OR2025-0013 / Parma AOI

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Thank you,

Caitlin Ross
Hearing Specialist
Canyon County Development Services Department

111 N. 11th Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-7463
Email: Caitlin.Ross@canyoncounty.id.gov
Website: www.canyoncounty.id.gov

Development Services Department (DSD)
NEW public office hours
Effective Jan. 3, 2023
Monday, Tuesday, Thursday and Friday
8am – 5pm
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**We will not be closed during lunch hour **

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EXHIBIT D

Public Comments

Received By: September 26, 2025 (Materials Deadline)

And October 6, 2025 (10 days prior to hearing)

Exhibit D.1

Michelle Barron

From: AOI Update
Sent: Wednesday, September 24, 2025 4:06 PM
To: 'Patricia Rohwer'
Subject: RE: [External] Case No. OR2025-0013

Patricia, if you would like to follow this link, you can see a larger map. You will need to scroll down to Parma AOI and click on the PDF document. Once you open it, on the side you can make it larger or smaller.

https://landhearingsagenda.canyoncounty.id.gov/hearing/bocc

Thanks,

Michelle Barron
Principal Planner
Canyon County Development Services Department
111 N. 11th Ave., #310, Caldwell, ID 83605
Direct Line: 208-455-6033
DSD Office Phone: 208-454-7458
Email: Michelle.Barron@canyoncounty.id.gov
Website: www.canyoncounty.id.gov

From: Patricia Rohwer <Pat@bardiamond.com>
Sent: Wednesday, September 24, 2025 8:09 AM
To: AOI Update <aoiupdate@canyoncounty.id.gov>
Subject: RE: [External] Case No. OR2025-0013

Maybe I don't understand what an "Area of Impact" is.
The map is very hard to read!
Thanks for your help.
Pat

Patricia L. Rohwer
Serving you since 1971.
Bar Diamond, Inc.
PO Box 60
Parma, Idaho 83660 USA
Voice: 208-722-6761
Fax: 208-722-6686
pat@bardiamond.com
www.bardiamond.com

From: AOI Update <aoiupdate@canyoncounty.id.gov>
Sent: Tuesday, September 23, 2025 4:50 PM
To: Patricia Rohwer <Pat@bardiamond.com>
Subject: RE: [External] Case No. OR2025-0013

Patricia,

The purpose of this ordinance update is to update the Parma Area of Impact. Your parcel is proposed to be removed from the Area of Impact that you are currently in. An Area of Impact is a planning tool for the city within the County. The State Legislature updated code that requires all cities within the county to either prove up their existing Area of Impact or bring forward an updated area. The County is facilitating the cities with making these changes. My planning team and I have worked with the cities within the county to set up public hearings with the Board of County Commissioners. They will decide if what Parma is asking for is reasonable and will approve or deny it. Parma has reduced the size of their Area of Impact significantly.

As far as an impact on your property, there really isn't any as far as your property is a county parcel and will remain in the county. You will just no longer be in the Area of Impact.

Thanks,

Michelle Barron
Principal Planner
Canyon County Development Services Department
111 N. 11th Ave., #310, Caldwell, ID 83605
Direct Line: 208-455-6033
DSD Office Phone: 208-454-7458
Email: Michelle.Barron@canyoncounty.id.gov
Website: www.canyoncounty.id.gov

From: Patricia Rohwer <Pat@bardiamond.com>
Sent: Tuesday, September 23, 2025 3:31 PM
To: AOI Update <aoiupdate@canyoncounty.id.gov>
Subject: [External] Case No. OR2025-0013

Can you tell me what the purpose of this ordinance update is??
Who initiated it? How will it effect my property today and in the future? (R38717)
I am totally confused. Patricia Rohwer

Patricia L. Rohwer
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PO Box 60
Parma, Idaho 83660 USA
Voice: 208-722-6761
Fax: 208-722-6686

pat@bardiamond.com
www.bardiamond.com

Exhibit D.2

September 22, 2025

Canyon County Development Services Department
111 North 11th Avenue Suite 310
Caldwell Idaho 83605

RE: Case No. OR2025-0013

Dear Canyon County Development Services Department:

We are residents of Parma outside city limits. We live on Parma Rd just down from the high school. We are not sure exactly what the plans are for Parma and the area of impact but we do not want any more growth in our community. We live out here for a reason away from the cities because we like living in the country.

If the plan is to build any more new homes or apartments in our area, WE DO NOT WANT THAT! Please go build somewhere else, like in the surrounding cities. Please leave our area alone and DO NOT MAKE US CITY LIMITS!!!

We do not like any of the growth that is happening in this entire valley and we understand there is nothing we can do to prevent the growth; however, we can voice what is happening in out small home town community. The letter that was sent to us states that public comments are VERY important, so here are our comments!!! LEAVE US ALONE!!!!

If any of you that are on the development/planning and zoning department that are from California, please DO NOT TRY TO CHANGE IDAHO INTO CALIFORNIA AND GO HOME, WE DONOT WANT YOU HERE OR YOUR LIBERAL IDEAS!!!!

Exhibit D3

Michelle Barron

From: Keri Smith <2c@growingtogetheridaho.org>
Sent: Friday, October 3, 2025 12:25 PM
To: Michelle Barron
Subject: [External] Parma Corrected Letter
Attachments: doc11292720251002151840.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Michelle. When I was reviewing the letters that were submitted, we noticed that one of the original letters wrote for Parma was submitted. It has the wrong acreage and recommendation from Growing Together. Can you substitute this letter for the one that was submitted? Let me know and I hope you enjoyed the APA Conference. Good to see you there.

Keri Smith

>

Growing Together LLC
301 Warehouse St.
Caldwell, ID 83605

Date: September 26, 2025

Canyon County Development Services /
Board of County Commissioners
111 N. 11th Avenue, Suite 310
Caldwell, ID 83605

Re: Parma AOI

Dear Commissioners,

We commend Parma for its efforts to reduce its Area of Impact (AOI). However, further refinement is necessary to ensure compliance with Idaho Code §67-6526 and to protect the long-term interests of Canyon County residents.

According to public records, the City of Parma currently encompasses approximately **711 acres (1.1 square miles)**. The proposed AOI boundary still captures an additional approximate **470 acres of farmland.** Under Idaho law, AOIs may not include lands unless they are *very likely* to be annexed within five years.

This scale of expansion is inconsistent with both precedent and statutory requirements. In the past decade, Parma has annexed land only incrementally, typically in parcels of a few dozen acres—for example, a recently annexed **18.7-acre property**. There is no evidence of large-scale annexation in Parma's history. The leap from such modest annexations to the potential addition of thousands of acres within five years lacks factual support.

Canyon County's Comprehensive Plan (Policy LU-3) directs protection of prime agricultural soils, and Idaho Code §67-6508(e) requires preservation of farmland as a matter of statewide importance. Including thousands of acres of prime farmland in Parma's AOI, without concrete annexation petitions or serviceability plans, violates both these standards and the statutory requirement of "very likely" annexation within five years.

Under established law, the burden of proof lies with the applicant. Parma has not demonstrated—through annexation agreements, utility extension commitments, or active developer petitions—that these 2,900 acres are imminently serviceable or annexable. In the absence of such evidence, the statutory test is not met.

For these reasons, we respectfully recommend that Parma's AOI be limited strictly to parcels immediately adjacent to city boundaries where annexation petitions have been filed and utility service extensions are already underway. This narrower approach complies with Idaho law, protects farmland, and ensures that growth occurs responsibly and in step with available services.

Respectfully,

George Crookham
President, Growing Together

cc. Growing Together Advisory Board

Growing Together, LLC

Mission Statement: To improve citizens' knowledge of local land use planning and to support good economic land use decisions.

Michelle Barron

From: Connie Lou Aebischer <connielou@tvpidaho.com>
Sent: Friday, September 26, 2025 10:57 PM
To: Michelle Barron; Jennifer Almeida
Subject: [External] Letter from Growing Together Re: Parma AOI OR2025-0013
Attachments: Letter from GT Re- Parma AOI OR2025-0013 .pdf

Hi Michelle,

Please add this letter signed by Goerge Crookham to the file for Parma AOI OR2025-0013 to be added to the record.

Thank You,
Connie Lou

Connie Lou Aebischer
Consultant for
Growing Together LLC
GROWING TOGETHER
Protecting Agriculture.
Empowering Communities.

Growing Together LLC
301 Warehouse St.
Caldwell, ID 83605

Date: September 26, 2025

Canyon County Development Services /
Board of County Commissioners
111 N. 11th Avenue, Suite 310
Caldwell, ID 83605

Re: Parma AOI

Dear Commissioners,

We commend Parma for its efforts to reduce its Area of Impact (AOI). However, further refinement is necessary to ensure compliance with Idaho Code §67-6526 and to protect the long-term interests of Canyon County residents.

According to public records, the City of Parma currently encompasses approximately **704 acres (1.1 square miles)**. The proposed AOI boundary still captures an additional **2,900 acres of farmland**—over **four times** the city's existing size. Under Idaho law, AOIs may not include lands unless they are *very likely* to be annexed within five years.

This scale of expansion is inconsistent with both precedent and statutory requirements. In the past decade, Parma has annexed land only incrementally, typically in parcels of a few dozen acres—for example, a recently annexed **18.7-acre property**. There is no evidence of large-scale annexation in Parma's history. The leap from such modest annexations to the potential addition of thousands of acres within five years lacks factual support.

Further, if even a fraction of the proposed 2,900 acres were annexed and developed, the consequences would overwhelm Parma's capacity to deliver essential services. For example:

- At **2 dwelling units per acre**, full development would yield ~5,800 homes and ~15,600 residents, compared to Parma's current population of ~2,100. At higher densities, the growth would be even more staggering.
- Existing water, sewer, street, and drainage systems are sized for the current city and cannot support such a rapid, disproportionate expansion without substantial and costly new infrastructure.
- Police, fire, EMS, and school resources would be stretched beyond capacity.
- Community services such as healthcare, urgent care, and mental health facilities—which are already limited in Parma—would be unable to meet the demands of a population several times larger than today's.

Canyon County's Comprehensive Plan (Policy LU-3) directs protection of prime agricultural soils, and Idaho Code §67-6508(e) requires preservation of farmland as a matter of statewide importance. Including thousands of acres of prime farmland in Parma's AOI, without concrete annexation petitions or serviceability plans, violates both these standards and the statutory requirement of "very likely" annexation within five years.

Under established law, the burden of proof lies with the applicant. Parma has not demonstrated—through annexation agreements, utility extension commitments, or active developer petitions—that these 2,900 acres are imminently serviceable or annexable. In the absence of such evidence, the statutory test is not met.

For these reasons, we respectfully recommend that Parma's AOI be limited strictly to parcels immediately adjacent to city boundaries where annexation petitions have been filed and utility service extensions are already underway. This narrower approach complies with Idaho law, protects farmland, and ensures that growth occurs responsibly and in step with available services.

Respectfully,

Digital Signature with permission

George Crookham
President, Growing Together

cc. Growing Together Advisory Board

Growing Together, LLC

Mission Statement: To improve citizens' knowledge of local land use planning and to support good economic land use decisions.

Exhibit D4

Michelle Barron

From: 2c@growingtogetheridaho.org
Sent: Thursday, October 2, 2025 1:12 PM
To: Tony Almeida; Michelle Barron
Subject: [External] Re:AOI Maps

Follow Up Flag: Follow up
Flag Status: Flagged

Tony, this is great data! Thank you for sharing. I hope that it can be shared as part of the packets to the Board.

Have you created maps yet that show the original AOI lines and the proposed lines? The maps provided by each of the cities were not too easy to discern. If you do have any maps, can you share them?

Michelle, I cc'd you as it's my understanding you are leading the AOI revisions. Any chance this data can be shared as part of the staff reports?

Keri K. Smith

From: Tony Almeida <tony.almeida@canyoncounty.id.gov>
Date: Thursday, October 2, 2025 at 9:46 AM
To: 'Keri Smith' <2c@growingtogetheridaho.org>
Subject: RE: [External] AOI Maps

Hi Keri,

Proposed Impact acres ;
Proposed AOI: Parma - Acres: 1,369.02
Proposed AOI: Wilder - Acres: 3,643.15
Proposed AOI: Notus - Acres: 1,111.06
Proposed AOI: Star - Acres: 10,744.02
Proposed AOI: Greenleaf - Acres: 836.53
Proposed AOI: Melba - Acres: 1,568.87
Proposed AOI: Caldwell - Acres: 30,158.93
Proposed AOI: Nampa - Acres: 47,751.29
Proposed AOI: Middleton - Acres: 19,103.62
Proposed AOI: HOMEDALE - Acres: 2,977.17

City Limits acres;
City Limits: Parma - Acres: 711.45
City Limits: Wilder - Acres: 510.04
City Limits: Notus - Acres: 637.28
City Limits: Caldwell - Acres: 16,974.11
City Limits: Melba - Acres: 303.48
City Limits: Greenleaf - Acres: 542.67
City Limits: StarCanyon - Acres: 1,320.35
City Limits: Middleton - Acres: 4,179.94
City Limits: Nampa - Acres: 23,851.89

Tony

-----Original Message-----
From: Keri Smith <2c@growingtogetheridaho.org>
Sent: Wednesday, October 1, 2025 11:33 AM
To: Tony Almeida <tony.almeida@canyoncounty.id.gov>
Subject: [External] AOI Maps

Hi Tony. Do you have the proposed AOI mapped? I'm wanting to confirm how many acres of land is in each proposed area of impact? Also, is it easy to tell how many acres a city currently includes?

Keri Smith
Growing Together