



**US Army Corps
of Engineers** ®

Walla Walla District
BUILDING STRONG®

**CITY OF DAYTON WATER SYSTEM IMPROVEMENTS PROJECT
SECTION 595 OF THE WATER RESOURCES DEVELOPMENT ACT
OF 1999**

DAYTON, IDAHO

ENVIRONMENTAL ASSESSMENT

**In compliance with the
National Environmental Policy Act of 1970**

ADMINISTRATIVE RECORD – DO NOT DESTROY

PROJECT FILE NUMBER: PPL-C-2024-0014

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1 Introduction

1.1 Project Name

City of Dayton Water System Improvements Project, Dayton, Idaho

1.2 References

- a. ER 200-2-2 (33 Code of Federal Regulations [CFR] 230) Environmental Quality Procedures for Implementing the National Environmental Policy Act
- b. 40 CFR 1500-1508 Regulations for the Procedural Provisions of the National Environmental Policy Act (42 U.S.C. 4321, *et seq.*)
- c. Section 595 of the Water Resources Development Act (WRDA) of 1999, Public Law (PL) 106-53, as amended in 2003 by PL 108-7, Section 126 to include Idaho

1.3 Project Location

The City of Dayton (City), Idaho, is located in Franklin County, Idaho, and is nestled against the northwestern side of Cache Valley. The City center is approximately 6.8 miles west of Preston, Idaho, 5.6 miles south of Clifton, Idaho and 5.8 miles north of Weston, Idaho. The primary highway systems converging in Dayton are Idaho State Highway 36 and Westside Highway (Franklin County). It is home to an estimated population of around 542. The City occupies 6.7 square miles, which is large for its population size, due partly to water distribution and annexing to the City's water system. Dayton's water system is in Township 15 South, Range 38 East, Sections 15 and 22.

1.4 Project Description

The U.S. Army Corps of Engineers, Walla Walla District (USACE) proposes to assist the City with an increment of work for the City of Dayton Water System Improvements Project located in Dayton, Idaho, under the authority of Section 595 of the Water Resources Development Act (WRDA) of 1999 Public Law (PL) 106-53, as amended. USACE would provide Section 595 assistance to the City for upgrades to the water system for one project element (increment of work), out of five improvements identified in a 2021 *Water Facilities Planning Study* (Facility Plan), specifically: engineering design and construction of two wellhouses. The proposed 595 Project (Project) construction would include installation of two wellhouses, including the purchase of well operating equipment (e.g., well pumps, electrical equipment, and other appurtenances for the wellhouses). USACE would also share costs for associated federal review and coordination. Implementation of this increment of work would contribute to improving water distribution in the City's water system.

1.4.1 Background Information

The City was initially settled in 1866 but was not officially organized until April 19, 1914, when the residents came together, mainly for the purpose of bonding and building a community water system. Since that time, the community water system has slowly expanded to meet the needs of its residents. It has been the lifeblood of the community and water has been a regular topic included in almost every City meeting since 1914.

The City's boundary footprint (6.7 sq.-miles) is one of the largest in the area and is almost as large as the City of Preston (6.8 sq.-miles) which has nearly 11 times the population. The main reason for the large City footprint is water distribution. The residents in the area during incorporation wanted to be on city water and several homes have been annexed (as recently as 2014) for the same reason.

The City currently has two wells, four springs (3 of which are in use) (Figure 1-1), and three water reservoirs, two of which are in use, with a total active storage capacity of 450,000 gallons. The City has adequate water rights to meet future water demands but does not currently have the pumping capacity to use its full water right (1,521 gpm). The largest of the two existing wells (1993 Well or Well 2) has partially failed, and its flow rate has reduced from 1,300 gallons per minute (gpm) to 200 gpm. The failure was due to a tear in the well casing and has been repaired, but the previous pumping capacity was not and cannot be recovered without re-drilling.

The City is currently in violation of Idaho Code 58.01.08—*Idaho Rules for Public Drinking Water Systems* and has been under a City-imposed water moratorium since July 2018. Idaho Code 58.01.08.501.17 states that:

Under normal operating conditions, with any source out of service, the remaining source(s) shall be capable of providing either the peak hour demand of the system or a minimum of the maximum day demand plus equalization storage.

The existing system is not able to provide the peak hour (1,096 gpm) nor the peak day demand (548 gpm) with any one of their sources out of service. To meet the Idaho Code 58.01.08 water source backup requirements, the City must develop an additional source(s).

Based on the results and recommendations of the Facility Plan prepared by Keller-Bliesner Engineering (Appendix A), the City has decided to install two new replacement wells with wellhouses and to install backup power generation. The overall target capacity is 1,100 gpm (550 gpm each well), which would allow the City to pump up to its full water right. The City is evaluating five potential well replacement sites under separate, non-USACE funding (Figure 1-1). Wellhouses and operating equipment would be needed at the two well site locations selected. For purposes of obtaining Idaho Community Development Block Grant (ICDBG) funds under Title I of the Housing and Community Development Act (HUD) of 1974 (PL 93-383), as amended, the City completed a HUD Environmental Assessment Worksheet (CD 2021, incorporated herein by reference) for installation of two wells (drilling and plumbing only), which has helped to inform this independent assessment.

The City received ICDBG funding in January 2022 to implement the drilling of the two replacement wells, upsizing of distribution pipes from the wells, and installation of back-up generators for each well along with flow meters. As part of the grant funding process, public input was solicited in several public meetings held in 2020 and the Idaho Department of Environmental Quality (IDEQ) prepared a Categorical Exclusion on June 30, 2021, for the non-USACE funded well drilling and plumbing activities (incorporated herein by reference) under the Idaho State Environmental Review Process that provided information to this Environmental Assessment (EA). The US Department of Agriculture Rural Development (USDA-RD), Idaho Department of Commerce and USACE are collectively involved in funding aspects of the overall effort to evaluate up to five potential test well sites (Figure 1-1) from which two sites would be chosen for drilling two municipal water wells.

The City has requested financial assistance from USACE to design and construct the wellhouses, and purchase of the well operating equipment for the two replacement wells.

This EA was prepared in accordance with the Council on Environmental Quality (CEQ) *Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA)*, Engineer Regulation (ER) 200-2-2, *Procedures for Implementing NEPA*, and Title 40 CFR Part 1500-1508. The objective of the EA is to evaluate potential environmental effects of the proposed action, as compared to the 'no action' alternative, and determine if significant effects could result. If effects are relatively minor, a Finding of No Significant Impact (FONSI) would be issued, and USACE would proceed with the proposed action of providing assistance to the City for an increment of work associated with its water improvements project. If the environmental effects are determined to be significant, an Environmental Impact Statement (EIS) would be prepared before a decision is reached on whether to implement the proposed action. Applicable laws under which effects are evaluated include but are not limited to, NEPA, the Endangered Species Act, the Clean Water Act, the Clean Air Act, and the National Historic Preservation Act.

NEPA is a full disclosure law, providing for public involvement in the NEPA process. All persons and organizations that have a potential interest in this proposed action – including the public, other federal agencies, state and local agencies, Native American Tribes, and interested stakeholders – are encouraged to participate in the NEPA process.

1.4.2 Authority

Section 595 of the WRDA of 1999 authorized USACE to participate in water-related environmental infrastructure and resource protection and development projects in rural Nevada and Montana. Public Law 108-7 (February 20, 2003) amended this legislation to include the State of Idaho.

1.5 Purpose and Need

USACE is proposing to provide Section 595 assistance to the City for upgrades to the Dayton water system. Specifically, USACE is proposing to assist the City with engineering, design and construction of two wellhouses, including the purchase of well operating equipment (e.g.,

well pumps, electrical equipment, and other appurtenances for the wellhouses), which is an increment of work for the City's larger water system improvements project identified in its 2021 Facility Plan, under the authority of Section 595 of the Water Resources Development Act (WRDA) of 1999 Public Law (PL) 106-53, as amended.

The purpose of the proposed action is to assist the City with planned water system improvements under its Facility Plan (i.e., design and construction of two wellhouses), which are intended to increase the availability and delivery of municipal water supply, including the purchase of well pumps, electrical equipment, and other appurtenances for the wellhouses. The proposed action would contribute to improving the water system in Dayton, Idaho. The proposed action is needed because the City is currently in violation of Idaho Code 58.01.08 and has been under a city-imposed water moratorium since July 2018 due to system deficiencies in the water system. To meet the Idaho Code 58.01.08 water source backup requirements, and existing and future municipal water supply demand, the City has determined that two replacement wells and associated wellhouses and well operating equipment are needed. The City has previously acquired separate, non-USACE funding for construction of the two replacement wells. To operate these two wells once they are installed, wellhouses and well operating equipment (e.g., well pumps, flow meters, electrical components, and associated appurtenances) and connections to existing infrastructure are necessary.

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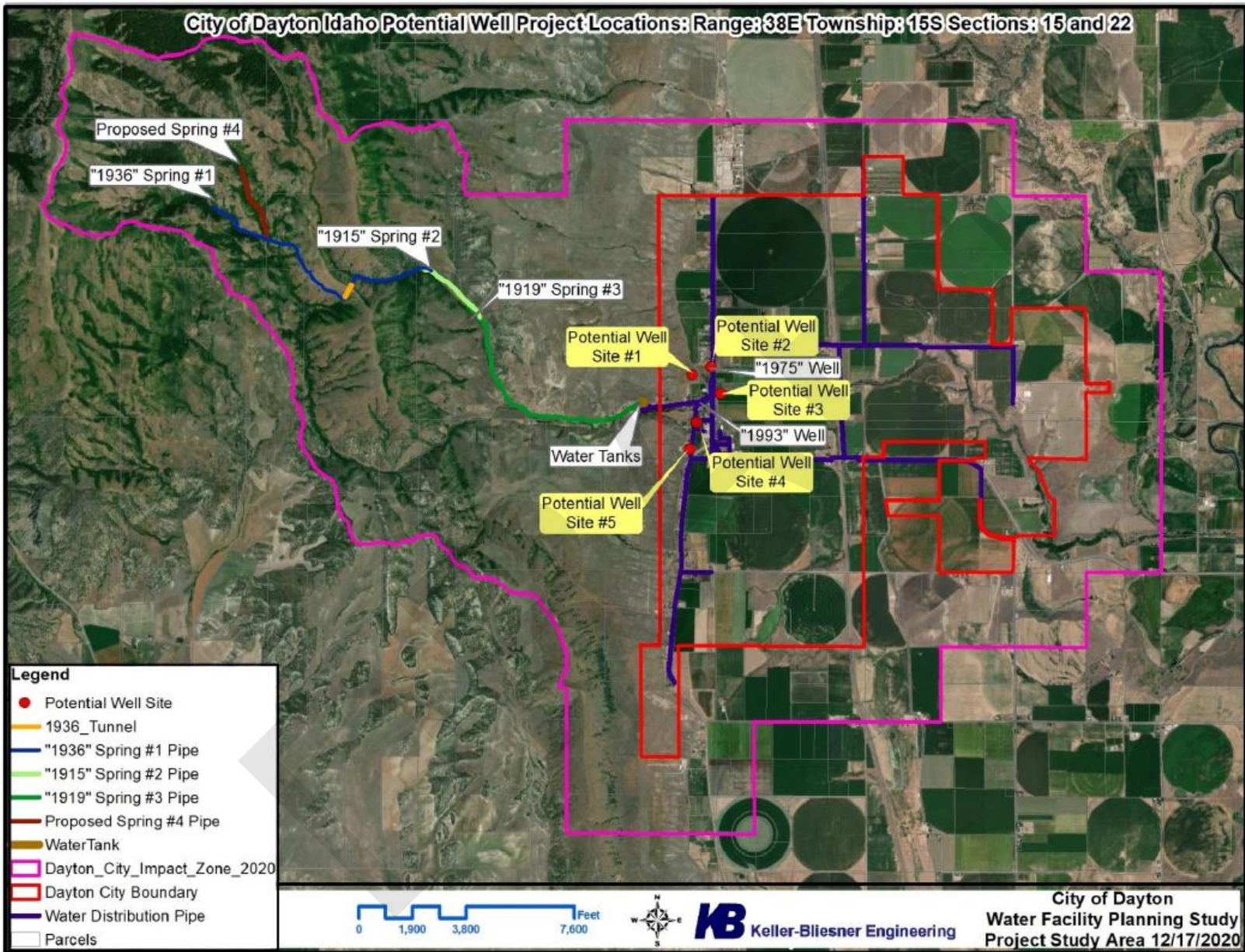


Figure 1-1. Potential Locations of Two Replacement wells and Associated Wellhouses in Dayton, Idaho

1.6 Construction Timeline

There are no constraints on the construction timeline.

2 Alternatives

Two alternatives are evaluated in this EA: the No Action Alternative and the Proposed Action Alternative. The No Action Alternative does not satisfy the proposed action's purpose and need, but NEPA requires analysis of the No Action Alternative to set the baseline from which to compare other alternatives. No Action does not mean there would be no environmental impacts from this alternative. Additionally, the requirement to consider a reasonable range of alternatives in an EA is a lesser one than under an EIS. Statutory objectives (in this case Section 595 of WRDA 1999, as amended) also guide the reasonableness of objectives outlined in a NEPA document. USACE assistance under Section 595 must be compatible with the City's larger Facility Plan, and involvement and funding from other sources, which limits the reasonable range of alternatives available for consideration. USACE has limited control over the City's larger water system improvement project identified in its Facility Plan. Consequently, only the No Action and Proposed Action Alternatives are analyzed further.

2.1 Alternative 1: No Action

Under the No Action Alternative, the City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding and construction of new wells would include only drilling and plumbing, and not include any well operating equipment or wellhouses. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the replacement wells would be non-functional, and the water system would continue to function in an inadequate state. The No Action Alternative does not meet the purpose and need but is presented as required by NEPA to set the baseline from which to compare all other alternatives.

2.2 Alternative 2: Proposed Action – Design and Construction of Wellhouses, and Purchase of Well Operating Equipment

Under the Proposed Action Alternative, USACE would provide Section 595 assistance to the City for upgrades to the City of Dayton water system for one project element (increment of work), out of five improvements identified in the Facility Plan, specifically: engineering design and construction of two wellhouses, with the purchase and installation of well operating equipment (i.e., well pumps, electrical equipment, and other appurtenances for the wellhouses necessary to operate). The wells would be connected to the existing storage tanks and some undersized distribution lines would be upsized depending on the final location of the production wells. Non-reimbursable USACE review and coordination costs include preparation of a *Project Partnership Agreement* package, verification of real estate holdings and interests, completion of environmental compliance requirements, engineering design review, process reimbursements, project management, and contingency.

Conceptual project designs assume there would be one above-ground and one underground wellhouse. The above ground wellhouse would be designed for storage of water maintenance equipment, and would consist of concrete masonry block, pre-engineered trusses, and metal roofing. The underground wellhouse would be a concrete vault. The piping, valves, heating, and controls would be housed in the respective wellhouses.

Heavy equipment (e.g., work excavators, front-loaders, backhoes, crane-mounted truck, etc.) would be used to perform wellhouse installation activities, including excavation for footings, foundation, and underground vault.

3 Affected Environment and Environmental Effects

This section describes the existing affected environment (existing condition of resources) and evaluates potential environmental effects on those resources for each alternative. Although only relevant resource areas are specifically evaluated for impacts, USACE did consider all resources in the proposed action area and decided as to which ones to evaluate. The following resource areas were evaluated: Air Quality, Greenhouse Gas Emissions and Climate Change, Historic and Cultural Resources, Noise, Socioeconomics and Environmental Justice, Soils, Vegetation, and Cumulative Effects. USACE determined it was not necessary to further evaluate Aesthetic Resources, Water Quality, Land Use and Recreation, and Terrestrial Wildlife and Aquatic Species including Threatened and Endangered Species, as implementation of the proposed action would not affect these resources (Table 3-1).

The following descriptors are used in this chapter for consistency in describing impact intensity in relation to significance. The term 'effect' is considered synonymous with 'impact' and includes both beneficial and adverse impacts.

- **No or Negligible Effect/Impact:** The proposed action would result in no effect, or the effect would not change the resource condition in a perceptible way. Negligible is defined as of such little consequence as to not require additional consideration or mitigation.
- **Minor Effect/Impact:** The effect to the resource would be perceptible; however, the effect would not be major and unlikely to result in an overall change in resource character.
- **Moderate Effect/Impact:** The effect to the resource would be perceptible and may result in an overall change in resource character.
- **Cumulative Effect/Impact:** The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.
- **Significant Effect/Impact:** The effect to the resource in total, inclusive of direct, indirect and cumulative effects, would be perceptible and may be severe. The effect would likely result in an overall change in resource character. The determination of significant impacts to any resource would require the completion of an Environmental Impact Statement.

Table 3-1. Environmental Resources not Evaluated Further.

Environmental Component	Explanation
Aesthetic Resources	The proposed action occurs in an area which contains aesthetic resources, but the action inherently will have no effect upon those resources.
Water Quality	Idaho is among the states that have United States Environmental Protection Agency delegated authority to issue stormwater permits and enforce water quality regulations. A Stormwater Pollution Prevention Plan (SWPPP) would be prepared, and the IDEQ's Idaho Pollution Discharge Elimination System (IPDES) 2022 Construction General Permit would be obtained because the area of disturbance is greater than one acre and there is a potential for stormwater discharge into nearby five-mile creek. Specifically, potential well site location #3.
Land Use and Recreation	The proposed action would not affect land use and recreation. All potential well sites being considered under separate, non-USACE funding are located on lands zoned residential and have experienced extensive disturbance from historical farming activity. None of the five potential well sites would result in any effects to formally classified parks, wilderness areas, state parks, national forests, or prime farmland. Dependent on the sites selected, easements, rights-of-way, and/or property leases may be required.
Terrestrial Wildlife and Aquatic Species including Threatened and Endangered Species	The proposed action is in a developed area and would have no impacts on aquatic and terrestrial species. The U.S. Fish and Wildlife Service Information for Planning and Consultation system showed no listed threatened or endangered species potentially present in the area (Project Code: 2023-0124690). Monarch Butterflies (<i>Danaus plexippus</i>) were identified as a candidate species, but the proposed action would have no effect on monarch butterflies or their habitat. The proposed action is not within or near a waterbody where species under the National Marine Fisheries Service jurisdiction could be present.

3.1 Air Quality

3.1.1 Affected Environment

Idaho is among the states that have United States Environmental Protection Agency delegated authority to issue air quality permits and enforce air quality regulations. The IDEQ's air protection efforts are designed to assure compliance with federal and state health-based air quality regulations. Franklin County, Idaho was designated as part of the multi-state Logan, Utah-Idaho nonattainment area for PM_{2.5}, effective December 14, 2009 (EPA 2023a). In 2021, EPA redesignated the area to an attainment area with a maintenance plan.

3.1.2 Environmental Consequences

3.1.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, air quality would generally remain at levels similar to existing conditions. The City would install two replacement wells (drilling and plumbing only) using

separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the new wells would be non-functional and the water system would continue to function, albeit in an inadequate state.

Well construction activities conducted by the City would result in temporary, minor adverse effects to air quality. Like other well replacement projects, construction is anticipated to take approximately 2-4 months. Exhaust from construction equipment and from worker and material delivery vehicles would result in localized, short-term increases in air pollutant emissions (e.g., carbon monoxide, carbon dioxide [CO₂], nitrogen oxides, etc.). Airborne dust (PM_{2.5} and PM₁₀ emissions) would also be generated as a result of excavation and vehicle traffic on unpaved surfaces. Temporary dust pollution impacts will be controlled as a condition of the construction specifications in accordance with the “Rules for the Control of Air Pollution in Idaho” (IDAPA 58.01.01.651). Implementation of Best Management Practices (BMPs) for emissions control would include minimizing the idling time for equipment and vehicles, minimizing number of vehicle trips, and maintaining equipment and vehicles in properly working conditions according to manufacturer’s specifications; and for dust control would include applying dust suppressants (typically water, but solutions of hydrophilic salts may be used in extremely dry and windy conditions), covering trucks, and covering excavated material. Air quality would quickly return to background levels following completion of construction. Impacts to air quality would be insignificant.

3.1.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities would be expected to be similar in duration and result in similar construction-related temporary, minor adverse effects on air quality as those described under Section 3.1.2.1 Alternative 1: No Action Alternative. Impacts to air quality would be insignificant.

3.2 Greenhouse Gas Emissions and Climate Change

3.2.1 Affected Environment

There are no known readily available GHG emissions data for Dayton, Idaho. Only facilities generating greater than 25,000 metric tons of carbon dioxide equivalents (CO₂e) per year must annually report their emissions to EPA. In 2021, the reported emissions from 36 facilities¹ in the state of Idaho was 5,228,325 metric tons of CO₂e, and from the closest individual emitter in nearby Clarkston, Utah was 6,918 metric tons CO₂e (reported by North Valley Landfill) (EPA 2023c).

Climate change in Idaho in the coming decades is anticipated to result in streams becoming warmer, the frequency of extreme rain events and wildfires increasing, and water potentially

¹ Reports by these emitters represent approximately half of total emissions for the state of Idaho since emissions are not reported by the transportation and agricultural sectors and not by facilities whose emissions are below the 25,000 metric ton CO₂e reporting threshold.

becoming less available for irrigation, domestic, commercial, municipal, and industrial uses (EPA 2016, Humes et al. 2021).

3.2.2 Environmental Consequences

3.2.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, GHG emissions would generally remain at levels similar to existing conditions. The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

Well construction activities conducted by the City would result in temporary, minor adverse effects to GHG emissions and no effect on climate. Well construction activities are anticipated to take 2-4 months to complete and GHG would increase temporarily from worker commute vehicles and construction equipment operations. The CEQ does not have any thresholds currently established for determining if GHGs that would be released would constitute a significant impact. Increased carbon emissions from the City's well construction would be localized, temporary, and estimated to be small in comparison to the total constant output of emission sources in the surrounding communities and would not be expected to have any measurable impact on local, regional, or global greenhouse gas emissions. Impacts to GHG emissions and climate would be insignificant.

Water system improvements were identified based on projected population growth through 2040 and water supply demand through 2040 and 2060, which considered that climate change is likely to result in longer growing periods, more outdoor water use, potentially greater fire flow requirements, and less spring flow and perhaps well capacity. Projected consequences of climate change would have no effect on the improved water system actions performed by the City.

3.2.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities would be expected to be similar in duration and result in similar construction-related temporary, minor adverse effects on GHG emissions and no effect on climate as described under Section 3.2.2.1 Alternative 1: No Action Alternative. Increased carbon emissions from the well construction would be localized, temporary, and estimated to be small. In comparison to the total constant output of emission sources in the surrounding communities and would not be expected to have any measurable impact on local, regional, or global greenhouse gas emissions. Impacts to GHG emissions and climate would be insignificant.

The proposed action is intended to contribute to the City's water system improvements, which were identified based on projected population growth through 2040 and water supply demand through 2040 and 2060 considering projected future climate conditions. Therefore, climate

change would have no effect on the proposed action's contribution to water system improvements during the foreseeable future.

3.3 Historic and Cultural Resources

3.3.1 Affected Environment

The City and the proposed action area are located within northern Cache Valley, the traditional homeland of the Western Shoshone (Simms 2008). Cache Valley is also located near the southern border of the Northern Shoshone and Bannock (southern Idaho) and near the western border of the Eastern Shoshone (western Wyoming) homelands. Beginning in the 1840s, emigrant travel to the west coast and settlement by members of the Church of Jesus Christ of Latter-Day Saints encroached upon and ended the traditional lifeways of these western tribes, particularly those within Cache Valley. Following the Bear River Massacre on January 29, 1863, most of the Cache Valley Shoshone relocated to the Fort Hall Reservation while some stayed in northern Utah and moved to the Washakie Reservation.

A historical examination of the area identified two historic linear sites located within the Proposed Action's area of potential effect. Those two properties are a small section of the Twin Lakes Canal West Lateral/ Oneida Western Canal (Canal) that is adjacent to the City of Dayton, as well as an un-named small ditch that trends west-east down a hillslope and feeds directly into the Canal.

3.3.2 Environmental Consequences

3.3.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, the City would construct two replacement wells (drilling and plumbing) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

Construction of the two replacement wells would involve permanent minor adverse impacts to the canal, as the canal would need to be breached in one section to accommodate for the well lines. United States Department of Agriculture – Regional Development (USDA-RD), in Section 106 consultation with the Idaho SHPO in 2020, determined the action would have no adverse effects to historic properties with the stipulation that the canal banks are recontoured to keep the original appearance of the canal. The SHPO concurred with the determination of no adverse effects to historic properties in a letter dated 04 June 2021. The Tribes did not respond with comments for consultation.

The historic ditch feeds into the canal, it is spatially removed from the construction of the two replacement wells, and therefore would not be impacted.

3.3.2.2 Alternative 2: Proposed Action – Water System Improvements

Under the Proposed Action Alternative, the impacts to the two historic linear features would be the same as described under Section 3.3.2.1 Alternative 1: No Action Alternative. Per the Idaho SHPO’s requirements, there would be no adverse effects to historic properties so long as the canal banks are recontoured to the original appearance of the canal. In addition, the Proposed Action Alternative would include the construction of wellhouses. However, the wellhouses themselves would be spatially removed and therefore would not result in impacts to these historic linear features.

3.4 Noise

3.4.1 Affected Environment

Noise in the vicinity of the proposed action area is characterized by light traffic in town and the noise created by farm and lawn care equipment.

Noise is measured as Day/Night average noise levels (DNL) in “A-weighted” decibels that the human ear is most sensitive to (dBA). The Noise Control Act of 1972 established a national policy to promote an environment for all Americans be free from noise that jeopardizes their health and welfare. However, no Federal standards for allowable noise levels have been established. The Occupational Safety and Health Administration’s (OSHA) occupational noise exposure standard 1910.95 provides an indicator of potential noise impacts.

3.4.1.1 Alternative 1: No Action Alternative

Under the No Action Alternative, noise levels would generally remain at levels similar to existing conditions. The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

Table 3-2. Permissible Noise Exposures².

Duration/day (hours)	Noise level (dBA)
8	85
4	88
2	91
1	94
0.5	97
0.25	100

² OSHA Standard 1910.95

3.4.2 Environmental Consequences

3.4.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, noise levels would generally remain at levels similar to existing conditions. The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

Under the No Action Alternative, there would be temporary, minor adverse impacts to noise in the vicinity of drilling and plumbing during construction of each well. Construction noise would be similar to farm equipment and other small machinery (e.g., lawnmowers) used in the local area. Heavy equipment (e.g., backhoe, front end loader, drill rig, etc.) emits noise levels around 85 dBA at 45 feet. Because construction equipment would be operated during daylight hours, a reasonable exposure time of 2-8 hours for residents and business personnel would be expected during a given construction day. Peak outdoor noise levels ranging from 78-90 dBA would occur during the time in which equipment is directly in front of or in proximity to homes and businesses (within 25-100 feet). These noise projections do not account for screening objects, such as trees, outbuildings or other objects that muffle and reduce the noise being emitted. The outdoor construction noise would be further muffled while individuals are inside their homes or businesses. Further, noise levels would be similar to typical neighborhood noise generated by gas powered lawnmowers in the local area, which could range from 90-95 dBA at three feet and 70-75 dBA at 100 feet. These limited exposures, attenuated dBA levels, and time intervals would be consistent with the Noise Control Act of 1972 and OSHA occupational noise exposure standard. Due to daytime construction and the short and limited duration of elevated noise levels associated with the No Action Alternative, impacts from noise to local residents and businesses would be insignificant.

3.4.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities would be expected to be similar in duration and result in similar construction-related temporary, minor adverse noise effects as those described under Section 3.4.2.1 Alternative 1: No Action Alternative. Noise impacts would be insignificant.

3.5 Socioeconomics and Environmental Justice

3.5.1 Affected Environment

Federal agencies are required by several executive orders (see Section 4.8) to consider as a part of their action any disproportionately high and adverse human health or environmental effects to minority and low-income populations³ and any disproportionately high and adverse

³ The CEQ defines a minority population as one in which the percentage of minorities exceeds 50 percent, or is substantially higher than (or “meaningfully greater than”) the percentage of minorities in the general population or

environmental health risks or safety risks to children. The CEQ’s (2023) Climate and Economic Justice Screening Tool (CEJST) was used to identify communities with environmental justice concerns and the EPA’s (2023b) EJScreen: Environmental Justice Screening and Mapping Tool (EJScreen Tool) was used to provide further information regarding these communities.

The CEJST identifies a community as disadvantaged if it is in a census tract that is (1) at or above the threshold for one or more environmental, climate, or other burden categories, and (2) at or above the threshold for an associated socioeconomic burden. Federally Recognized Tribes are also considered disadvantaged communities. Burden categories include impacts from climate change, clean energy availability and energy costs, clean transit, access to sustainable housing, presence of legacy pollutants, access to clean water and water infrastructure, susceptibility to health burdens such as diabetes, asthma, heart disease and life expectancy, and lastly, workforce development that includes unemployment and those 25 and older with less than a high school diploma. According to CEJST (CEQ 2023), the census tract encompassing the proposed action area represents disadvantaged communities because it is over the threshold for one burden category (i.e., *Housing- Lack of Indoor Plumbing* at 96th percentile) and at the associated socioeconomic threshold (i.e., *Low Income* at 65th percentile).

The demographic indicators for the City identified with the EJScreen Tool (EPA 2023d) are as follows: 5% are people of color (4% identify as Hispanic; and 2% identify as other races); 28% of the population is considered low-income; 2% are unemployed; 1% of the population is linguistically isolated; 3% of the population has less than a high school education; and 7% of the population is under the age of 5, 43% is under the age of 18, and 9% is over the age of 64. The City was also identified as containing Justice40 (CEJST) and EPA Inflation Reduction Act (IRA) disadvantaged communities.

Table 3-3 and Table 3-4 present comparisons of selected socioeconomic and environmental indicators between the City, the state of Idaho, and the United States. Percentiles are a way to see how local residents compare to everyone else in Idaho and the United States. For instance, the state percentile shows what percent of the Idaho population has an equal or lower value, meaning less potential for exposure/risk/proximity to certain pollutions or facilities, or a lower percent minority. Based on these comparisons, the City is less diverse (i.e., less people of color) than Idaho and the United States. Additionally, environmental indicators for the City are generally lower than Idaho and the United States except for ozone that is slightly higher than Idaho and lead paint that is slightly higher than both Idaho and the United States.

Table 3-3. Socioeconomic Indicators for the City of Dayton⁴.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
Demographic Index	16%	25%	29	35%	24

other appropriate unit of geographic analysis (CEQ 1997). Low-income populations are defined as households with incomes below the federal poverty level, which currently ranges from \$14,580 for a household of one to \$50,560 for a household of eight (with \$5,140 for each additional person) (88 FR 3424).

⁴ Source: EJScreen Tool (EPA 2023d).

Supplemental Demographic Index	10%	13%	33	14%	36
People of Color Population	5%	19%	16	39%	13
Low Income Population	28%	32%	44	31%	51
Unemployed	2%	4%	44	6%	32
Limited English Speaking Households	1%	2%	73	5%	60
Population with Less Than High School Education	3%	9%	29	12%	24
Population under age 5	7%	6%	66	6%	69
Population over Age 64	9%	17%	22	17%	23
Low Life Expectancy	17%	19%	30	20%	28

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Table 3-4. Environmental Indicators for the City of Dayton⁵.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
Particulate Matter (PM 2.5 in ug/m3)	5.19	6.57	37	8.08	4
Ozone (ppb)	58.9	53.5	99	61.6	31
Diesel PM (ug/m3)	0.041	0.146	19	0.261	<50th
Air Toxics Cancer Risk (risk per MM)	10	17	1	25	<50th
Air Toxics Respiratory Hazard Index	0.1	0.23	0	0.31	<50th
Toxic Releases to Air	100	330	83	4600	24
Traffic Proximity and Volume (daily traffic count/distance to road)	0.64	84	6	210	2
Lead Paint Indicator (% pre-1960s housing)	0.35	0.2	78	0.3	62
Superfund Proximity (site count/km distance)	0.015	0.031	67	0.13	10
RMP Proximity (facility count/km distance)	0.031	0.24	15	0.43	4
Hazardous Waste Proximity (facility count/km distance)	0.03	0.22	27	1.9	4
Underground Storage Tank Indicator	0.005	1.5	24	3.9	0
Wastewater Discharge Indicators (toxicity-weighted concentration/m distance)	0.00039	4.1	47	22	40

3.5.2 Environmental Consequences

3.5.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, the Dayton community would be expected to continue to be comprised of low-income populations and the population within the water system service area is projected to increase by approximately 14.7% within the foreseeable future (518 individuals in 2020 to 594 individuals in 2029). The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

During well construction, there may be some temporary, minor adverse effects to individuals, including low income and minority populations and children, due to temporary traffic

⁵ Source: EJScreen Tool (EPA 2023).

disruptions (e.g., road closures, detours, etc.), temporary increases in air pollutant emissions and airborne dust (see Section 3.1.2.2), and temporary increases in noise (see Section 3.4.2.2). Short-term disruptions would be minimized to the maximum extent practicable. Low income and minority populations may experience minor benefits during the construction process through provision of a small number of construction jobs and multiplier effects of expenditures in the local economy. The new wells would not be functional without addition of operating equipment, so the water system would continue to function in an inadequate state. Low-income and minority populations and children of low-income and/or minority families living in the City's water service area are unlikely to experience disproportionate impacts from the water system continuing to operate inadequately given the share of homes without indoor plumbing (96th percentile). Impacts to socioeconomics and environmental justice would be insignificant.

3.5.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities including operating equipment installation would be expected to be similar in duration and result in similar construction-related temporary, minor adverse effects on low-income and minority populations and children as those described under Section 3.5.2.1 Alternative 1: No Action Alternative. Individuals residing in the water service area are expected to experience minor to major health benefits over the long-term from the proposed action because improvements to the water system would reduce the potential of well operating equipment failures and associated temporary water service disruptions. Given the share of homes without indoor plumbing (96th percentile), benefits over the long-term would be disproportionately lower for low income and minority populations and children in homes that lack indoor plumbing because these households would have limited to no opportunity to use the improved water system. Overall, short-term construction-related effects would not be expected to disproportionately adversely or beneficially affect low income or minority populations, and children; whereas there may be disproportionately lower, long-term benefits to these populations compared to other individuals in the water service area.

3.6 Soils

3.6.1 Affected Environment

In northern Cache Valley where the City is located, the valley floor slopes gradually from the eastern and western mountains towards the Bear River, which generally runs through the center of the valley. Fault block mountains exist within the valley floor, along with river terraces formed by the Bear River and its tributaries. The Dayton city center lies within this valley floor land and has a general slope southeast toward the Bear River with an average elevation of 4,900-ft on the western city boundary and 4,700-ft on the eastern city boundary. The soils in the area consist primarily of gravelly loams and silt loams, and soils present in the proposed action area are summarized in Table 3-5 (USDA 2023).

3.6.2 Environmental Consequences

3.6.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, soil conditions would generally remain similar to existing conditions. The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional and the water system would continue to function in an inadequate state.

Table 3-5. Typical Soil Profiles within the Proposed Action Area.

Series	Description	Prime Farmland
Hondee gravelly loam, 4 to 12 percent slopes	<i>0 to 6 inches: gravelly loam</i> <i>6 to 16 inches: gravelly loam</i> <i>16 to 19 inches: very gravelly loam</i> <i>19 to 39 inches: very gravelly sandy loam</i> <i>39 to 60 inches: very gravelly loamy coarse sand</i>	Prime farmland if irrigated
Winwell silty clay loam, 0 to 2 percent slopes	<i>0 to 10 inches: silty clay loam</i> <i>10 to 22 inches: silty clay</i> <i>22 to 30 inches: silty clay</i> <i>30 to 51 inches: silty clay loam</i> <i>51 to 60 inches: silt loam</i>	Farmland of statewide importance, if irrigated

Well construction activities have a potential to result in temporary, minor soil loss during drilling and fence line installation activities. Excavated soils would be used as backfill whenever possible. Erosion-related soil loss of excavated materials would be controlled through implementation of Best Management Practices (BMPs) for dust control including applying dust suppressants, covering trucks, and covering excavated material. No future impacts to soils would be anticipated upon completion of the proposed construction activities. Impacts to soils would be insignificant.

3.6.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities would be expected to result in similar construction-related temporary, minor soil loss as the No Action Alternative and would include similar BMP minimization measures. Impacts to soils would be insignificant.

3.7 Vegetation

3.7.1 Affected Environment

The proposed action area is within highly disturbed locations consisting primarily of grasses and invasive plant species, and some shrubs and one or more garden/orchard trees dependent on which sites are selected for the replacement wells and associated wellhouses. Site 1 is currently being used as a horse pasture, Site 2 is in a previously farmed field that is

currently planted to conservation grass, Site 3 is located in the backyard of an existing private resident and is currently being used as a garden/orchard area; Site 4 is located in what was once the original City Center and Dayton City Park area and is in the corner of an existing football practice field where grass and sprinklers have been installed, and Site 5 is located in a grass horse pasture.

3.7.2 Environmental Consequences

3.7.2.1 Alternative 1: No Action Alternative

Under the No Action Alternative, vegetation would generally remain similar to existing conditions. The City would construct two replacement wells (drilling and plumbing only) using separate, non-USACE funding. USACE would not assist the City with design and construction of two wellhouses, nor with purchasing the well operating equipment for the two replacement wells. As such, the wells would be non-functional, and the water system would continue to function in an inadequate state.

Well construction activities have a potential to result in short-term, minor vegetation loss (primarily grasses with possibility of some shrubs) within the construction area of the wells during drilling and fence line installation activities. Disturbed areas would be replanted or re-seeded with native vegetation or an appropriate ground cover that is not invasive nor harmful to existing ecosystems. Impacts to vegetation would be insignificant.

3.7.2.2 Alternative 2: Proposed Action – Water System Improvements

Wellhouse construction activities would be expected to result in similar construction-related short-term, minor vegetation loss within the construction area of the wellhouses as the No Action Alternative and would include similar BMP minimization measures. Impacts to vegetation would be insignificant.

3.8 Cumulative Effects

NEPA and CEQ regulations implementing the Act require Federal agencies to consider the cumulative impacts of their actions. Cumulative effects are defined as, “the impact on the environment which results from the incremental impact of an action when added to other past, present and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions” (40 CFR § 1508.7). Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.

In addition to the proposed action, the City is modernizing other elements of their water system in order to address existing deficiencies and accommodate reasonably expected population growth (i.e., estimated to increase from 518 individuals in 2020 to 745 individuals in 2060). Planned improvements to the water system’s future water connections would be designed to accommodate this projected population growth.

The proposed action, along with other past and future water system improvement elements, would improve the capacity and effectiveness of the City’s water system thereby reducing the potential for temporary water service disruptions due to a well failure. Short-term construction related effects to Air Quality, Greenhouse Gas Emissions and Climate Change, Historic and Cultural Resources, Noise, Socioeconomics and Environmental Justice, Soils, and Vegetation resources from the proposed action, collectively with similar short-term construction-related effects from other water system improvements and future water connections, would be minor. As a result, the proposed action would not result in significant adverse cumulative effects but would provide cumulative long-term benefits. Table 3-6 below summarizes the effects of the proposed action with the additive effects of implementing the City of Dayton past and future water system improvement elements by resource.

Table 3-6. Cumulative Effects.

Resource	Resource Effects?	Additive Effects?	Significance?
Air Quality	Temporary minor.	Minor	Less than significant
Greenhouse Gas/ Climate	-Temporary minor adverse effects on GHG emissions. -No effect on climate.	Minor	Less than significant
Historic/Cultural Resources	-No effect.	Minor	Less than significant
Noise	-Temporary minor	Minor	Less than significant
Socioeconomics/ Environmental Justice	-Temporary, minor adverse. -Long-term minor to major health benefits overall. -Long-term benefits disproportionately lower for low income and minority populations and children.	Minor	Less than significant
Soils	Temporary minor.	Minor	Less than significant
Vegetation	Short-term minor.	Minor	Less than significant

4 Compliance with Applicable Environmental Laws, Regulations, and Executive Orders

4.1 National Environmental Policy Act

The National Environmental Policy Act (NEPA) requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. The range of actions covered by NEPA is broad and includes making decisions on permit applications, adopting federal land management actions, and constructing highways and other publicly owned facilities. Using the NEPA process, agencies evaluate the environmental and related social and economic effects of their proposed actions. Agencies also provide opportunities for public review and comment on those evaluations.

USACE prepared this EA pursuant to regulations implementing NEPA (42 U.S.C. 4321 et seq.) and will make it available to state and federal agencies, Tribes, and the public for review and comment. USACE identified no impacts significantly affecting the quality of the human environment in the analysis contained in this EA. If no such impacts are identified during the public review process, compliance with NEPA would be achieved upon signing a Finding of No Significant Impact (FONSI). However, if such impacts are identified, an Environmental Impact Statement (EIS) would be required, and compliance with NEPA would be achieved upon completion of the EIS and the signing of a Record of Decision.

4.2 Endangered Species Act

The Endangered Species Act (ESA) established a national program for the conservation of threatened and endangered fish, wildlife and plants and the habitat upon which they depend. Section 7(a)(2) of the ESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats. Section 7(c) of the ESA and the federal regulations on endangered species coordination (50 CFR §402.12) require that federal agencies prepare biological assessments of the potential effects of major actions on listed species and critical habitat.

According to the USFWS Official Species List issued on January 24, 2024, there are no listed endangered or threatened species and no designated critical habitat under USFWS' jurisdiction in the proposed action area. Monarch butterflies were identified as candidate species, but the USACE determined that implementation of the Proposed Action Alternative would have no effect on monarch butterflies or their habitat. There are no threatened or endangered species or designated critical habitat under NMFS' jurisdiction near the proposed action area.

4.3 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966 as amended directs federal agencies to assume responsibility for all cultural resources under their jurisdiction. Section 106 of NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the National Register of Historic Places (NRHP). The NHPA implementing regulations, 36 CFR Part 800, requires that the federal agency consult with the SHPO, Tribes and interested parties to ensure that all historic properties are adequately identified, evaluated, and considered.

Pursuant to Section 106 of NHPA, on Dec 18, 2020, the USDA Rural Development (USDA-RD) office-initiated consultation with the Idaho State Historic Preservation Officer (SHPO), the Shoshone Bannock Tribes, the Shoshone Paiute Tribe, and the Northwest Band Shoshone Tribe. This consultation was for the five potential sites being investigated for construction of two replacement wells. The Idaho SHPO requested an archaeological survey report and pedestrian survey of the area of potential effect. The survey evaluation determined there was two linear historic features located within the area of potential effect. Of which, only the Twin

Lakes Canal West Lateral/ Oneida Western Canal would be impacted through the construction of the replacement wells. Consultation with the Idaho SHPO has determined that the proposed project will have no adverse effects to historic properties with the stipulation that the canal banks are recontoured to keep the original appearance of the canal. The SHPO concurred with the determination of no adverse effects to historic properties in a letter dated 04 June 2021. The Tribes did not respond with comments for consultation. USACE independently reviewed the proposed action and associated documentation and determined in a *Cultural Resources Record of Internal Review* (June 2, 2023) that the USDA-RD documentation and consultation satisfies the requirements of the NHPA (Section 106) and USACE can adopt the same without any need for further supplementation or consultation.

Should an inadvertent discovery, construction activities would stop. Immediate notification to the Idaho SHPO office and Idaho Department of Commerce would occur and an evaluation from the Idaho SHPO office of the revealed discovery would be made before a cultural clearance to proceed would be given from the Idaho SHPO office.

4.4 Clean Water Act

The Clean Water Act (CWA) of 1972 establishes the basic structure for regulating discharges of pollutants into Waters of the United States (WOTUS) and regulating quality standards for surface waters. Section 404 established a program to regulate the discharge of dredged or fill material into Waters of the United States. Implementation of the Proposed Action Alternative would not result in the discharge of dredged or fill material subject to Section 404. A permit would not be required.

Section 402 pertains to the National Pollutant Discharge Elimination System (NPDES) requirements and therefore regulates point and non-point source discharges and stormwater run-off into WOTUS. Activities involving construction or soil disturbance on the shoreline or upland have the potential for stormwater runoff and would be subject to the stormwater provisions of Section 402 if the area of soil disturbance would be more than an acre and would discharge stormwater into nearby surface waters. The City, or their representative (e.g., contractor) would prepare a Stormwater Pollution Prevention Plan and would obtain coverage under the IDEQ's IPDES 2022 Construction General Permit because the area of disturbance is greater than one acre and the potential for stormwater discharge into nearby five mile creek. The rainfall erosivity factor is less than 5.0 for four months or less of construction in the proposed action area (EPA 2023). As such, the Proposed Action Alternative may be eligible for a low erosivity waiver. There are no expected point source discharges of a pollutant that would otherwise require a Section 402 permit.

Absent the need for an individual/general Section 402 (point source) or Section 404 permit, there would be no need for a Section 401 certification from the state ensuring compliance with state/tribal water quality standards.

4.5 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 specifies that it is illegal to “take” migratory birds, their eggs, feathers or nests without a permit. “Take” includes by any means or in any manner, any attempt at hunting, pursuing, wounding, killing, possessing or transporting any migratory bird, nest, egg or part thereof.

Implementation of the proposed action would not result in take or negatively impact migratory bird species or their habitat subject to the MBTA.

4.6 Farmland Protection Policy Act

The Farmland Protection Policy Act discourages Federal activities that would convert farmland to nonagricultural purposes. Prime and important farmland includes all land that is defined as prime, unique, or farmlands of statewide or local importance.

The land identified in each of the five potential well sites is zoned residential and is not classified as prime farmland. The selection of five potential sites to be evaluated for placement of two wells was the result of the City’s intentional effort to avoid any impact to prime farmland and maintain the goals of the City’s Comprehensive Plan.

4.7 Floodplain and Flood Risk Management Related Executive Orders

Executive Order 11988 (1977) *Floodplain Management* outlines the responsibilities of federal agencies in the role of floodplain management. Each agency must evaluate the potential effects of actions on floodplains and avoid undertaking actions that directly or indirectly induce development in the floodplain or adversely affect natural floodplain values.

Executive Order 13690 (2015 and Reinstated in May 2021) *Establishing a Federal Flood Risk Management Standard [FFRMS] and a Process for Further Soliciting and Considering Stakeholder Input* established a FFRMS as “a flexible framework to increase the resilience against flooding and help preserve the natural values of floodplains.” It also directed the Water Resources Council to “issue amended Guidelines to provide guidance to agencies on the implementation of Executive Order 11988, as amended, consistent with the Standard.” This Executive Order was revoked in 2017 by Executive Order 13807 *Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects* and reinstated in 2021 by Executive Order 14030 *Climate-Related Financial Risk*.

Executive Order 14030 (2021) *Climate-Related Financial Risk* clarifies that the FFRMS established under Executive Order 13690 is reinstated and that the “Guidelines for Implementing Executive Order 13690 *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input* and Executive Order 11988 *Floodplain Management*” remain in effect.

The proposed action would not directly or indirectly induce growth in the floodplain or adversely affect natural floodplain values. A flood map has not been completed by the Federal Emergency Management Agency Flood Map Service Center for Dayton, Idaho.

4.8 Executive Order 11990, Protection of Wetlands

This Executive Order of 1977 directs federal agencies to take actions to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands when undertaking federal activities and programs. It has been the goal of the USACE to avoid or minimize wetland impacts associated with their planned actions.

Implementation of the proposed action would not result in the destruction, loss, or degradation of wetlands.

4.9 Climate Change and Greenhouse Gas Emissions Executive Orders

Consistent with Executive Order 13990, *Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis*, CEQ has issued interim National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change. This guidance includes direction for agencies to quantify a proposed action's GHG emissions and to disclose and provide context for a proposed action's GHG emissions and climate effects. Only facilities generating greater than 25,000 metric tons of carbon dioxide equivalents (CO₂e) per year must annually report their emissions to EPA.

USACE determined that that implementation of the Proposed Action Alternative would not produce enough GHGs to warrant annual reporting, nor would the action have any measurable impact on local, regional, or global greenhouse gas emissions. Therefore, the Proposed Action would comply with the Executive Order.

4.10 Environmental Justice Related Executive Orders

In 1994, President Clinton issued Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*. The purpose of EO 12898 is to focus Federal attention on the environmental and human health effects of Federal actions on minority and low-income populations, with the goal of achieving environmental protection for all communities. It directs Federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations to the greatest practicable extent and permitted by law.

More recently, President Biden issued Executive Order 13985 (2021) *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, Executive Order 14008 (2021) *Tackling the Climate Crisis at Home and Abroad*, and Executive Order 14096 (2023) *Revitalizing Our Nation's Commitment to Environmental Justice for All*, to further address the need to achieve environmental justice and equity across the federal government. These new executive orders direct federal agencies to renew their energy, effort, resources, and attention to implement environmental justice and underscore the administration's commitment to environmental justice.

USACE determined that that implementation of the Proposed Action Alternative would comply with these Executive Orders.

4.11 Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks

This Executive Order of 1997 directs federal agencies to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children and ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks. Dependent on the well locations selected by the City, USACE identified that unenclosed wells and exposed well operating equipment could pose a safety concern, particularly for children as an “attractive nuisance”. However, the USACE proposed action of enclosing the well heads and providing enclosed storage for well equipment addresses the safety risks regardless of location selected.

USACE determined that implementation of the Proposed Action Alternative would comply with this Executive Order.

5 Consultation, Coordination, and Public Involvement

This EA and the associated draft FONSI were made available for a 15-day public review and comment period beginning on April 1, 2024, and concluding on April 15, 2024. USACE notified the following agencies, organizations, and tribes of the open comment period: City of Dayton, City of Preston, City of Weston, City of Clifton, IDEQ, Idaho Department of Fish and Game, Idaho State Historical Society/State Historic Preservation Officer, National Marine Fisheries Service, U.S. Department of Agriculture-Rural Development, U.S. Fish and Wildlife Service, Sagebrush Steppe Land Trust, Franklin County, Franklin County Farm Bureau, Franklin County University of Idaho Extension Office, Southeastern Idaho Public Health, Southeast Idaho Council of Governments, Idaho Department of Lands, Idaho Department of Transportation, Idaho Department of Water Resources, Environmental Protection Agency, Inland Northwest Land Conservancy, Nature Conservancy of Idaho, Idaho State Journal, and Shoshone-Bannock Tribes, the Shoshone Paiute Tribe, and the Northwest Band Shoshone Tribe.

At the close of the public review and comment period, USACE will consider all comments received and move forward in the NEPA process by signing the Final FONSI, if appropriate.

6 Literature Cited

- CD (City of Dayton). 2021. Housing and Community Development Act (HUD) Environmental Assessment Worksheet-Drinking Water Improvement Project. Submitted to Idaho Community Development Block Grant on October 22, 2021. Grant #ICDBG-21-I-09-PF. 10 pp + appendices.
- CEQ (Council Environmental Quality). 2023. Climate and Economic Justice Screening Tool.

Last modified: 15 March 2023 - 12:57pm. <https://toolkit.climate.gov/tool/climate-and-economic-justice-screening-tool>

- CEQ. 1997. Environmental Justice- Guidance under the National Environmental Policy Act. Council on Environmental Quality, Executive Office of the President, Old Executive Office Building, Room 360, Washington, D.C. <https://ceq.doe.gov/docs/ceq-regulations-and-guidance/regs/ej/justice.pdf>
- EPA (United States Environmental Protection Agency). 2023a. Summary of Franklin County (Logan, Utah-Idaho) PM-2.5 Nonattainment Area Plan. <https://www.epa.gov/sips-id/summary-franklin-county-logan-utah-idaho-pm-25-nonattainment-area-plan>. Last updated on June 9, 2023.
- EPA. 2023b. Greenhouse gases. <https://www.epa.gov/report-environment/greenhouse-gases> Last updated July 14, 2023.
- EPA. 2023c. Facility Level Information on GreenHouse gases Tool (FLIGHT)- 2021 Greenhouse Gas Emissions from Large Facilities. <https://ghgdata.epa.gov/ghgp>
- EPA. 2023d. EJScreen: Environmental Justice Screening and Mapping Tool. Version 2.11. <https://www.epa.gov/ejscreen>
- EPA. 2023e. Rainfall Erosivity Factor Calculator for Small Construction Sites. <https://lew.epa.gov/>
- EPA. 2016. What Climate Change Means for Idaho. Available at <https://www.epa.gov/sites/default/files/2016-09/documents/climate-change-id.pdf>
- Humes, K., Walters, R., Ryu, J., Mahler, R., Woodruff, C. 2021. Water Report. Idaho Climate-Economy Impacts Assessment. James A. & Louise McClure Center for Public Policy Research, University of Idaho. Boise, ID. IDEQ (Idaho Department of Environmental Quality). 2021. Categorical Exclusion Determination for the Proposed City of Dayton Drinking Water Improvements Project, Franklin County, City of Dayton, Idaho. June 30, 2021. 3 pp.
- Keller-Bliesner Engineering. 2021. City of Dayton Water Facilities Planning Study. Prepared for City of Dayton, Idaho and Idaho Department of Environmental Quality. Drinking Water Grant No.: DWG-2072020-3. Prepared by Keller-Bliesner Engineering, LLC, Logan, UT. June 22, 2021. 125 pp + appendices.
- Simms, Steven R. 2008. Ancient Peoples of the Great Basin and Colorado Plateau. Left Coast Press, Walnut Creek, California.
- USDA (United States Department of Agriculture). 2023. Web Soil survey. URL: Retrieved July 11, 2023, from Web Soil Survey: https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm?TARGET_APP=Web_Soil_Survey_application_golkefoxldoqcu3x11lj32b (accessed 07.11.23).

Appendix A. Water Facilities Planning Study

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Appendix B. Estimated Greenhouse Gas Emissions

Table B-1. Estimated Greenhouse Gas Emissions from Construction Equipment under Alternative 1: No Action Alternative.

Equipment Type	Active	Hours per Day	CO EF (lbs/hr) ^{1,2}	CO ₂ EF (lbs/hr) ^{1,2}	CH ₄ EF (lbs/hr) ^{1,2}	NO _x EF (lbs/hr) ^{1,2}	CO Daily GHG	CO ₂ Daily GHG	CH ₄ Daily GHG	NO _x Daily GHG	CO ₂ e ³ Daily GHG
Worker vehicles	10	2	0.0038	1.1102	0.0000	0.0003	0.076	22.205	0.001	0.007	24
Excavator	1	8	0.5097	120	0.0055	0.2821	4.077	956.634	0.044	2.257	1634
Rubber Tired Loaders	1	8	0.4340	109	0.0056	0.3467	3.472	868.890	0.045	2.774	1700
Backhoe	1	8	0.3593	66.8	0.0033	0.2127	2.875	534.381	0.026	1.702	1045
Cement and Mortar Mixers Composite	1	8	0.0414	7.2	0.0008	0.0534	0.3312	57.6	0.0064	0.4272	172
Cranes Composite	1	8	0.3759	129	0.0065	0.4601	3.0072	1032	0.052	3.6808	1,521
Other	1	8	0.3482	123	0.0044	0.2497	2.786	980.074	0.035	1.998	1579
Total Project CO ₂ e (lbs/day)											7676
Total Project CO ₂ e (metric tons)											210

Codes:

^{1/} SCAQMD. 2023a. Off-road Mobile Source Emission Factors (Scenario Years 2007 – 2025). <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors>

^{2/} SCAQMD.2023b. On-road Vehicles Emission Factors (Scenario Years 2007 – 2026). [http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/emfac-2007-\(v2-3\)-emission-factors-\(on-road\)](http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road))

^{3/} Where CO₂e (CO₂ equivalent) = X*CO + CO₂ + Z*CH₄ + Y*NO_x, and

- X = 100 Year Global Warming Potential for Carbon Monoxide⁴ = 1
- Y = 100 Year Global Warming Potential for Oxides of Nitrogen⁴ = 298
- Z = 100 Year Global Warming Potential for Methane⁴ = 25

^{4/} Title 40 CFR Part 98 Chapter I Subchapter C: Table A-1 Global Warming Potentials

Table B-2. Estimated Greenhouse Gas Emissions from Construction Equipment under Alternative 2: Proposed Action – Water System Improvements.

Equipment Type	Active	Hours per Day	CO EF (lbs/hr) ^{1,2}	CO ₂ EF (lbs/hr) ^{1,2}	CH ₄ EF (lbs/hr) ^{1,2}	NO _x EF (lbs/hr) ^{1,2}	CO Daily GHG	CO ₂ Daily GHG	CH ₄ Daily GHG	NO _x Daily GHG	CO ₂ e ³ Daily GHG
Worker vehicles	10	2	0.0038	1.1102	0.0000	0.0003	0.076	22.205	0.001	0.007	24
Excavator	1	8	0.5097	120	0.0055	0.2821	4.077	956.634	0.044	2.257	1634
Rubber Tired Loaders	1	8	0.4340	109	0.0056	0.3467	3.472	868.890	0.045	2.774	1700
Backhoe	1	8	0.3593	66.8	0.0033	0.2127	2.875	534.381	0.026	1.702	1045
Cement and Mortar Mixers Composite	1	8	0.0414	7.2	0.0008	0.0534	0.3312	57.6	0.0064	0.4272	172
Cranes Composite	1	8	0.3759	129	0.0065	0.4601	3.0072	1032	0.052	3.6808	1,521
Other	1	8	0.3482	123	0.0044	0.2497	2.786	980.074	0.035	1.998	1579
Total Project CO ₂ e (lbs/day)											7676
Total Project CO ₂ e (metric tons)											210

Codes:

^{1/} SCAQMD. 2023a. Off-road Mobile Source Emission Factors (Scenario Years 2007 – 2025). <http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/off-road-mobile-source-emission-factors>

^{2/} SCAQMD.2023b. On-road Vehicles Emission Factors (Scenario Years 2007 – 2026). [http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/emfac-2007-\(v2-3\)-emission-factors-\(on-road\)](http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/emfac-2007-(v2-3)-emission-factors-(on-road))

^{3/} Where CO₂e (CO₂ equivalent) = X*CO + CO₂ + Z*CH₄ + Y*NO_x, and

- X = 100 Year Global Warming Potential for Carbon Monoxide⁴ = 1
- Y = 100 Year Global Warming Potential for Oxides of Nitrogen⁴ = 298
- Z = 100 Year Global Warming Potential for Methane⁴ = 25

^{4/} Title 40 Part 98 Chapter I Subchapter C: Table A-1 Global Warming Potentials

Appendix C. Socioeconomic and Environmental Indicators

EJScreen Socioeconomic Indicators Data for the City of Dayton in comparison to the State of Idaho and USA. Source: EJScreen Tool (EPA 2023)⁶.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
Demographic Index	16%	25%	29	35%	24
Supplemental Demographic Index	10%	13%	33	14%	36
People of Color Population	5%	19%	16	39%	13
Low Income Population	28%	32%	44	31%	51
Unemployed	2%	4%	44	6%	32
Limited English Speaking Households	1%	2%	73	5%	60
Population with Less Than High School Education	3%	9%	29	12%	24
Population under Age 5	7%	6%	66	6%	69
Population over Age 64	9%	17%	22	17%	23
Low Life Expectancy	17%	19%	30	20%	28

⁶ EPA. 2023. EJScreen: Environmental Justice Screening and Mapping Tool. Version 2.11. <https://www.epa.gov/ejscreen>

EJScreen Environmental Indicators Data for the City of Dayton in comparison to the State of Idaho and USA. Source: EJScreen Tool (EPA 2023)⁴.

SELECTED VARIABLES	VALUE	STATE AVERAGE	PERCENTILE IN STATE	USA AVERAGE	PERCENTILE IN USA
Particulate Matter (PM 2.5 in ug/m3)	5.19	6.57	37	8.08	4
Ozone (ppb)	58.9	53.5	99	61.6	31
Diesel PM (ug/m3)	0.041	0.146	19	0.261	<50th
Air Toxics Cancer Risk (risk per MM)	10	17	1	25	<50th
Air Toxics Respiratory Hazard Index	0.1	0.23	0	0.31	<50th
Toxic Releases to Air	100	330	83	4600	24
Traffic Proximity and Volume (daily traffic count/distance to road)	0.64	84	6	210	2
Lead Paint Indicator (% pre-1960s housing)	0.35	0.2	78	0.3	62
Superfund Proximity (site count/km distance)	0.015	0.031	67	0.13	10
RMP Proximity (facility count/km distance)	0.031	0.24	15	0.43	4
Hazardous Waste Proximity (facility count/km distance)	0.03	0.22	27	1.9	4
Underground Storage Tank Indicator	0.005	1.5	24	3.9	0
Wastewater Discharge Indicators (toxicity-weighted concentration/m distance)	0.00039	4.1	47	22	40