

El Paso County Development Services
2880 International Circle
Colorado Springs, CO 80910
Attn: Kari Parsons

September 24, 2021

**Re: Falcon Area Water Authority
1041 Application**

Dear Ms. Parsons,

As a representative of the applicant, Falcon Area Water Authority (“FAWA”), we are preparing submittal requirements for the 1041 application for a proposed water transmission pipeline for the Authority.

The applicant wishes to develop water resources, rights, systems and facilities for the benefit of the Falcon area’s residents and customers (see Vicinity Map in *Appendix A*). The proposed facilities for which this 1041 Application is being submitted includes the “Bar X” well field, the “McCune Ranch” well field, the “Shamrock West Ranch” well field (see attached well field maps – *Appendix B*), and a system of pipelines (see attached map – *Appendix A*) that will form a regional water distribution system for further distribution of water within the respective service areas of FAWA’s member entities. Also included herein is a summary of the decrees and reserved easements for the Bar X, McCune Ranch, and Shamrock West water rights (*Appendix C*).

Information regarding the project, and in the form of the 1041 guidelines (2.303, 3.201, & 4.201) are below:

2.303 Application Submission Requirements

- (1) Completed application form in the format attached as *Exhibit B* and approved by the Development Services Director.

This application is provided as Exhibit B.

- (2) The Director may require submission of any plan, study, survey or other information, in addition to the information required by this Section, at the applicant’s expense, as in the Director’s judgment is necessary to enable it to review and act upon the application.

Noted.

- (3) Any application which requires compliance with § 24-65.5-101, et seq., C.R.S., (Notification to Mineral Owners of Surface Development) shall not be considered to have been submitted as complete until the applicant has provided a certification signed by the applicant confirming that the applicant or its agent has examined the records of the El Paso County Clerk and Recorder for the existence of any mineral estate owners or lessees that own less than full fee title in the property which is the subject of the application, and stating whether or not any such mineral estate owners or lessees exist. In addition, for purposes of the County convening its initial public hearing on any application involving property which mineral estate owners or lessees owning less than full fee title in the property have been certified by the applicant to exist, the application shall not be considered to have been submitted as complete until the applicant has provided an additional signed certification confirming that the applicant has, at least 30 days prior to the initial

public hearing, transmitted to the County and to the affected mineral estate owners and lessees the notices required by C.R.S. §24-65.5-101, et seq.

Appendix D contains information regarding mineral estate owners or lessees that own less than full fee title in the subject property. Additionally, 30 days prior to the initial public hearing, a signed certification regarding mineral estate owners and lessees will be transmitted to the County.

- (4) Information describing the applicant.
- (a) The names, addresses, including email address and fax number, organizational form, and business of the applicant and, if different, the owner of the Project.

Applicant:

***Falcon Area Water Authority
C/O PJ Anderson
31 North Tejon Street, Suite 516
Colorado Springs, Colorado 80903
Telephone: 719-331-2732***

- (b) The names, addresses and qualifications, including those areas of expertise and experience with projects directly related or similar to that proposed in the application package, of individuals who are or will be responsible for constructing and operating the Project.

***A construction contractor has not yet been selected. A contractor will be selected through a competitive bidding process that will account for experience with similar projects. FAWA will be responsible for operation of the wells, pipelines and all appurtenant systems and facilities.
The names, addresses, and qualifications of the construction contractor(s) and facilities operator(s) will be provided to the County, if desired, once they are selected.***

- (c) Written authorization of the application package by the Project owner, if different than the applicant.

Project owner is the same as applicant.

- (d) Documentation of the applicant's financial and technical capability to develop and operate the Project, including a description of the applicant's experience developing and operating similar projects.

The proposed pipeline will be financed by the FAWA, and documentation of the applicant's financial capability can be provided upon request.

FAWA has engaged JDS-Hydro Consultants, Inc. (JDS) to design, permit and manage the construction of the pipeline. JDS employs nine (9) professional engineers, as well as additional engineering and technical support staff. Overall, the company has a current combined experience of over 200 years.

As a director at JDS, Ryan Mangino has worked on numerous similar projects as an employee for JDS-Hydro for over 17 years. His written qualifications are included in Appendix E.

JDS specializes in water and wastewater conveyance and treatment, and has designed, permitted and managed the construction of numerous facilities similar to this project. Also, JDS is either the District Engineer or consulting engineer for multiple districts in the Falcon area.

Operations staff will be hired by FAWA during the construction phase, and those who are responsible for operating the pipeline will be employed based on experience operating similar facilities.

- (e) Written qualifications of report preparers.

Ryan Mangino has worked on numerous similar projects as an employee for JDS-Hydro for over 17 years. His written qualifications are included in Appendix E.

(5) Information describing the Project.

- (a) Vicinity map showing the proposed site and the surrounding area.

See Appendix A

- (b) Executive summary of the proposal indicating the scope and need for the Project.

Scope:

FAWA has been organized as a political subdivision of the State of Colorado pursuant to Section 39-1-204.2, Colorado Revised Statutes, to supply and provide water to the service areas of its respective members and such additional areas as it may, by inclusion and/or contract, agree to serve. FAWA's initial member entities are Sterling Ranch Metropolitan Districts Nos. 1, 2 & 3. The Authority has been established for the purposes (a) of regional cooperation in the development of water resources, rights, systems, and facilities for the benefit of the members, the region's residents, and the region's customers, as well as for the benefit of the public generally, and (b) of delivery of water to the members for further distribution within their respective service areas and such additional areas as FAWA may agree to serve. More specifically, FAWA has been established for the purposes of acquiring, developing, financing, purchasing, constructing and operating water assets for the members' mutual benefit and in service to the best interests of their citizens, customers and the public.

The scope of the project is set forth in Appendices A and B hereto and consists of 27 potential well sites (typically two wells per site), interconnecting pipelines, appurtenant facilities, and an approximate 17.6-mile-long transmission line from the Bar X, McCune, and Shamrock West Ranches to treatment and storage facilities located in the northern portion of Sterling Ranch. These facilities have previously received 1041 approvals from El Paso County. Additionally, waterlines will be constructed from the treatment and storage facility to The Ranch and Jane's parcel as shown in Appendix B. The transmission line will utilize and overlap the existing Xcel Energy/Public Service Company powerline

corridor from Hodgen Road on the north to a point approximately 1.5 miles east of Sterling Ranch on the south pursuant to an existing license agreement (Appendix F). Please see Appendix G for the status of easements and easement options that have been obtained by FAWA.

Need:

Sterling Ranch/Retreat/Schmidt. As stated above, the initial three governmental members of FAWA are Sterling Ranch Metropolitan District Nos. 1, 2 & 3. Existing land use approvals for Sterling Ranch total approximately 5,817 single-family equivalents ("SFE'S") at full build out. Sterling Ranch Metropolitan District No.1 ("SRMD1") has also committed to provide water service to two adjacent development areas known as The Retreat and the Schmidt property. The Retreat has zoning approval for approximately 164 SFE's utilizing a public water system and the Schmidt property is expected to contain approximately 400 SFE's with public water. The ultimate number of SFE's planned for these three projects is 6,381.

The current available legal water supply for Sterling Ranch, The Retreat, and the Schmidt property, per the County's 300-year requirement, is 423.49 acre-feet or enough for 1,199 SFE's. SRMD1 has acquired an additional 273.89 acre-feet of Nontributary Bar X water for post-pumping replacement of on-site Sterling Ranch's and Schmidt Property's Not Nontributary (NNT) supplies (no pipeline required), thereby adding 273.89 acre-feet of legal on-site supply, for an additional 776 SFE's. On-site supplies from these three projects therefore provide enough water for approximately 1,975 SFE's.

The water supplies from the Bar X, McCune, and Shamrock West Ranches, not including water already dedicated to augmenting the NNT water at the Sterling Ranch, Retreat, and Schmidt developments, total 1,207.03 acre-feet, or enough to serve an additional 3,416 SFE's. Finally, FAWA has identified water rights for sale underlying several other ranches in this general area of northern El Paso County containing over 1,000 acre-feet of decreed water per the County's 300-year requirement. FAWA's water transmission lines are being sized with the capacity to convey water from these potential sources, which would potentially result in water supplies for over 3,000 additional SFE's.

The Ranch. SRMD1 has tentatively agreed to provide water services to The Ranch, a project immediately adjacent to Sterling Ranch. The Ranch consists of 610.47 acres and has sketch plan and zoning approvals for approximately 2,144 SFE's. The Ranch is estimated to have Nontributary and Not Nontributary supplies of 245.01 acre feet, or enough for 694 SFE's.

Other Falcon Area Water Providers. Other Falcon area metropolitan districts have experienced challenges obtaining sufficient water for final plats within their respective boundaries and have expressed an interest in the FAWA project. The potential for increased water availability for these districts from FAWA is enhanced by the possible connection to Meridian Service Metropolitan District's upper water zone by way of Rex Road (see Appendix A hereto) and Woodmen Hills Metropolitan District's new water storage tank located adjacent to FAWA's pipeline terminus on the upper portion of Sterling Ranch.

The declining aquifer levels in the immediate Falcon area also support the need for the

FAWA project. An Arapahoe formation well in the immediate Falcon area is expected to produce less than 60 gallons per minute. The same depth and cost well on the Bar X, McCune, or Shamrock West Ranches is expected to yield 200-300 gallons per minute. At a cost of approximately \$1.25M per well, this difference in yields represents a significant potential savings to the Falcon area water customers.

Alternative Sources of Water. There are few, if any, other sources of available water located in El Paso County sufficient in quantities to meet the needs of the Falcon area water providers. The City of Colorado Springs could become a viable alternative if it changes its longstanding policies and restrictions on providing water service outside its corporate boundaries. However, even in the event that those policies are changed, the City is not expected to place County customers on an equivalent standing with its inside the City customers and taxpayers. In particular, the City is not expected to be willing to provide the binding commitments and non-interruptible supplies to County subdivisions required by State statute and County subdivision regulations.

Annexation. The City of Colorado Springs has recently revised its guidelines and policies applicable to the annexation of residential properties. Where this potential change in policy might lead is uncertain at this time. State annexation law does not permit involuntary annexations except in situations such as Cimarron Hills, where property has been surrounded by city for a period of three years. This situation does not apply to the service areas of any of the Falcon water providers, and is unlikely to ever occur. After declining several times to annex Sterling Ranch prior to the Sterling Ranch Metropolitan District's and the project's developers spending significant amounts of public and private funds designing, permitting, and building the initial phases of Sterling Ranch's water and wastewater systems, the City recently expressed an interest in annexing most of the ranch, and requested that the Districts and major landowners submit an annexation petition. That petition was submitted but has now been withdrawn.

Aquifer Storage and Recovery. The FAWA project will provide an excellent opportunity for Aquifer Storage and Recovery ("ASR") or Managed Aquifer Recharge ("MAR") programs. Such storage programs, which require little land and result in low evaporative loss, are currently being utilized by the Centennial Metropolitan District in the southern Denver area and approximately 1,200 other locations in the United States and around the world. The FAWA pipeline and well system will be designed and constructed so it can be utilized in wet years by the City of Colorado Springs and Falcon water providers to recharge the Arapahoe and Laramie Fox Hills Aquifers from renewable water sources, including the Arkansas River.

- (c) Plans and specifications of the Project in sufficient detail to evaluate the application against the applicable Review Criteria.

Preliminary calculations have been performed to size the pipelines (see Appendix H). Final design, drawings and specifications will be completed prior to construction.

The main pipeline will consist of 12-inch to 30-inch diameter pipe with the appropriate valves and appurtenances required by a transmission line.

- (d) Descriptions of alternatives to the Project considered by the applicant. If the Director determines that the nature or extent of the proposal involves the potential for significant

damage and warrants examination of other specific, less damaging alternatives, the Director may require the applicant to evaluate and present information on such additional alternatives as part of the application.

As stated above, there are currently no realistic alternatives to providing sufficient water supplies to the FAWA and Falcon areas to meet the build-out demands of the approved development projects. Cherokee Metropolitan District and the FAWA District members are currently in negotiations for a lease of capacity in Cherokee's Sundance water pipeline. While the proposed lease will provide capacity for the Falcon area developments for the term of the lease, Cherokee is unwilling to enter into a perpetual agreement for the delivery of water. Therefore, the FAWA pipeline is required for the long-term water deliveries. It is also thought to be advantageous to have two pipelines to the northern portions of the County to accommodate the foreseeable delivery of water from south to north concurrent with flows from north to south.

- (e) Schedules for designing, permitting, constructing and operating the Project, including the estimated life of the Project.

Preliminary design of the pipeline system, including the portions between well sites, has been completed. The first two wells will be drilled in 2022 or 2023. Once drilled, the wells will be tested for flow and water quality, following which the Application for Construction Approval will be submitted to CDPHE. Construction of the main water transmission line from the McCune Ranch south to Sterling Ranch will commence at least two years prior to the termination of the lease agreement with Cherokee or in 2022 should such lease agreement not be consummated. The balance of the wells and connecting pipelines will be constructed as the need arises. The proposed wells and pipelines are projected to have a useful life of 50 years.

- (f) The need for the Project, including a discussion of alternatives to the Project that were considered and rejected; existing/proposed facilities that perform the same or related function; and population projections or growth trends that form the basis of demand projections justifying the Project.

Based on current projections, the maximum development within the boundaries of the three current FAWA members (Sterling Ranch Metropolitan Districts 1, 2, & 3) is 5,817 SFE's. Sterling Ranch Metropolitan District No. 1 has also agreed to provide water to three adjacent development areas known as the Schmidt Property, The Ranch, and The Retreat. The Ranch, consisting of 610.47 acres, has a sketch plan and zoning approvals for a maximum of 2,144 SFE's, and The Retreat has similar approvals for approximately 164 SFE's that will be served by a public water system. The Schmidt Property is expected to contain 400 SFE's. The current available legal water supply for these three projects per the County's 300-year requirement is 205.29 acre-feet or enough to supply approximately 581 SFE's. The additional water supplies from the Bar X, McCune, and Shamrock West Ranches total approximately 1,164.27 acre-feet per the 300-year requirement (without augmentation), or enough water for an additional 3,295 SFE's. FAWA has also identified water rights underlying several other ranches in the general areas of the Bar X, McCune, and Shamrock West Ranches, which contain over 1,000 acre-feet of decreed water per 300-year requirement that are believed to be for sale. FAWA's water transmission lines are being sized with the capacity to convey water from these additional sources, resulting in water supplies for over 3,000 additional SFE's.

In addition to the districts serving Sterling Ranch, The Ranch, and The Retreat, the current land use approvals for land within and adjacent to the boundaries of other Falcon area water providers, including, but not limited to Meridian Service Metropolitan District, Paint Brush Hills Metropolitan District, Woodmen Hills Metropolitan District, and Falcon Highlands Metropolitan District, are extensive with significant water needs as they continue to develop. There is also little reason to believe that the high growth trends and absorption rates in the Falcon area over the past two decades will slow in comparison to other areas of El Paso County. The exact amounts of both current and needed legal and physical water supplies within each of these districts are ever evolving numbers. All are actively planning for and/or acquiring additional water supplies to meet their needs. However, it is believed that the FAWA project will be capable of providing both additional legal and physical supplies of water at costs below those of most alternative sources. The basis for this belief is the much higher yields from the deep northern El Paso County aquifer wells over the same depth Falcon area wells and the ability of the FAWA members to share in costs of production, delivery, and operations.

As described above in Section (5)(b), there do not appear to be many, if any, viable alternatives to the FAWA project. Obtaining perpetual, non-interruptible supplies of water from the City of Colorado Springs for County developments is not thought to be possible. While annexation might eventually become a practical alternative for some portions of the Falcon area, particularly where there is contiguity to the City's boundaries, it is unlikely that existing residents and commercial users in the Falcon area would agree to annex to the City. While the potential lease of Cherokee's Sundance pipeline will provide capacity for some years to come, it is not the perpetual delivery system needed to meet the demands of the Falcon area water providers. Finally, there are water rights for sale to the east in the Upper Black Squirrel Ground Water Basin. Many of these water rights are considered renewable and are thus subject to the County's lower 100-year platting requirement, not the 300-year requirement. However, the amount of available water in the UBS is relatively small compared to the Falcon area's needs; the existing pipelines to that area are at capacity during summer months and the majority of these rights are not exportable out of the Basin to the Sterling Ranch area.

Description of relevant conservation techniques to be used in the construction and operation of the Project.

As required by El Paso County and other agencies having jurisdiction during construction, utilization of best management practices will be developed and followed during construction and operation to minimize sedimentation, material waste and other disturbances. To the extent they do not already do so, all members of FAWA will be encouraged to adopt water conservation policies such as tiered water pricing, limited outside irrigation, and low-flow plumbing devices. The Sterling Ranch Metropolitan Districts have already done so.

- (g) Description of demands that this Project expects to meet and basis for projections of that demand.

The projected water demands are based on County approved sketch plans, zone changes, preliminary plans and final plats for Sterling Ranch, The Ranch and The Retreat. Sterling Ranch contains 1,450 acres with approvals for approximately 5,817 SFE's. The Ranch

contains 610.47 acres with approvals for up to 2,144 SFE's. The Retreat has approvals for 164 SFE's that will be located on a central water system. The projected amount of SFE's from these three projects at full development totals 8,125.

The current available legal water supply for these three projects per the County's 300-year requirement totals 832.71 acre-feet or enough to supply approximately 2,357 SFE's. If this application is approved, the water supplies from the Bar X, McCune, and Shamrock West Ranches will provide approximately 1,164.27 acre-feet of water per the County's 300 year requirement (without the need for augmentation), or enough water for an additional 3,295 SFE's. The applicant has been in contact with the owners of two other large ranches in this general area of Northern El Paso County that contain over 1,000 acre feet of additional water rights per the County's 300 year requirement. There are also a number of smaller tracts of land with available water rights in the area of FAWA's delivery system. FAWA's water transmission line is being sized with the capacity to convey water from these potential sources for a total of approximately 11,000 SFEs.

To summarize, the available groundwater supplies from Sterling Ranch, The Ranch, and The Retreat, plus the Bar X, McCune, and Shamrock West water rights from this FAWA project, are sufficient to serve approximately 5,658 SFE's on a 300-year basis. Water rights sufficient to serve over 3,000 additional SFE's are potentially available and deliverable to the Falcon area if this water delivery system is approved.

- (6) Property rights, other permits, and approvals.
- (a) Description of property rights that are necessary for or that will be affected by the Project, including easements and property rights proposed to be acquired through negotiation or condemnation.

A list of the necessary easements and options for easements that have been acquired is contained in Appendix G hereto. A list of the remaining easements to be acquired is also contained in Appendix G hereto.

Only easements through negotiation have been acquired. No property rights have been acquired through condemnation.

- (b) A list of all other federal, state and local permits and approvals that will be required for the Project, together with any proposal for coordinating these approvals with the County permitting process. Copies of any permits or approvals related to the Project that have been granted.

The pipeline will be added to FAWA's Water System Monitoring plan, which is reviewed and regulated by the Colorado Department of Public Health & Environment (CDPHE).

Additionally, the following permits or approvals will be obtained for the pipelines and wells:

- 1. Erosion and Stormwater Quality Control Permit – El Paso County*
- 2. Construction Activity Permit – El Paso County*
- 3. Traffic Control Plans – El Paso County*
- 4. Construction Groundwater Discharge Permit – CDPHE*
- 5. Well Permits – Division of Water Resources*

6. *Well Construction/Completion Approvals – Division of Water Resources*
7. *Basis of Design Report – CDPHE*
8. *System Monitoring Plan - CDPHE*

- (c) Copies of relevant official federal and state consultation correspondence prepared for the Project; a description of all mitigation required by federal, state and local authorities; and copies of any draft or final environmental assessments or impact statements required for the Project.

None other than those listed in section 6(b). It is anticipated that no consultation with Federal or State agencies is necessary. The mitigation that will be required for this project is limited to BMP's for stormwater.

BMP's, including revegetation, will be implemented as required by El Paso County through the Erosion and Stormwater Quality Control Permit (ESQCP) process.

- (7) Land Use.

- (a) Provide a map at a scale relevant to the Project and acceptable to the Department describing existing land uses and existing zoning of the proposed Project area and the Project service area, including peripheral lands which may be impacted. The land use map shall include but need not necessarily be limited to the following categories: residential, commercial, industrial, extractive, transportation, communication and utility, institutional, open space, outdoor recreation, agricultural, forest land and water bodies. Show all special districts (school, fire, water, sanitation, etc.) within the Project area.

Appendix I contains a map and table depicting existing land uses and existing zoning of the proposed project area. Additionally, all special districts are also shown on maps contained in Appendix I.

- (b) All immediately affected public land boundaries should be indicated on the map. Potential impacts of the proposed development upon public lands will be visually illustrated on the map as well as described in the text.

As shown on the map in Appendix I, public lands impacted by the proposed project are owned by special districts, within County Rights-of-Way, or within County parcels.

Impacts to public lands occur predominately in the construction phase, during which traffic control will be required to mitigate impacts to traffic and aid in the safety of construction workers.

- (c) Specify whether and how the proposed Project conforms to the El Paso County Master Plan.

The County Master Plan most applicable to this project is the El Paso County Water Master Plan, An Element of the County Master Plan, February, 2019 (“WMP”). A review of Section 7.3, Summary of All Goals and Policies, contained in the WMP indicates the consistency of this Application with most, if not all, of WMP’s stated goals and policies. The goals and policies that appear most relevant are:

Goal 3.1: Promote cooperation among water providers to achieve increased efficiencies on infrastructure. Policy 3.1.1 – Encourage advanced planning and cooperation among water providers to reduce the overall number of water main lines running through the County.

Response: Rather than each metropolitan district in the Falcon area acting independently of each other, a statutory water authority was chosen for the primary purpose of enabling regional cooperation in the development of water resources, rights, systems, and facilities. It is the hope of the Applicant that most of the Falcon area districts will become members of FAWA. Each of these districts has expressed an interest in the project to the Applicant. The southerly terminus of the FAWA project at the treatment plant in the northern portion of Sterling Ranch adjoins Woodmen Hills Metropolitan District's ("WHMD") new water storage facility. WHMD, in turn, is interconnected with Meridian Service Metropolitan District's water system which is connected to the Paint Brush Hills Metropolitan District water system. WHMD also recently connected its water system to the Falcon Highlands Metropolitan District. JDS-Hydro, the engineering firm selected by FAWA to plan and design its proposed system, is the engineering firm of record for WHMD, and Falcon Highlands Metropolitan District (FHMD), as well as being a consulting engineer for Meridian Service Metropolitan District (MSMD).

Goal 3.2: Promote cooperation among water providers to achieve increased efficiencies on treatment. Policy 3.2.1 – Where possible, treatment plants should provide potable water to different water providers in order to save on capital, maintenance and operational costs.

Response: The water treatment facility located on Sterling Ranch, which has previously received 1041 approval from the County, will be the sole treatment facility for Sterling Ranch, The Ranch, and The Retreat. In addition, this treatment facility will be designed to treat FAWA's water to the same standards as WHMD and MSMD's existing treatment plants to allow for the comingling of FAWA's water with that of each of the other entities.

Policy 4.2.2 – Allow for the potential to import new and preferably, renewable water supplies from outside the various planning areas, potentially including the Arkansas River, in order to reduce the dependency on non-renewable water supplies and accommodate new development.

Response: The importation of deep water from northern El Paso County to the Falcon planning area meets the first part of this Policy. Designing the system to accommodate aquifer storage from reusable and renewable water sources, potentially including the Arkansas River in cooperation with the City of Colorado Springs, is consistent with the latter part of this policy.

Goal 4.3 – Collaborate with the State and other stakeholders to extend the economic life of the Denver Basin aquifers. Policy 4.3.3 – Incentivize the use of deeper Arapahoe and Laramie-Fox Hills aquifers by central water providers, leaving or deferring the use of the shallower aquifers for the more dispersed domestic well users.

Response: On both the Bar-X and McCune Ranches, the shallower aquifers have been or will be reserved for individual domestic wells with the Arapahoe and Laramie-Fox Hills aquifer water being used by FAWA.

Goal 5.2 – Identify regional opportunities and barriers to satisfying water supply needs at full development build-out (2060). Policy 5.2.4 – Encourage the locating of new development where it can take advantage of existing or proposed water supply projects that would allow shared infrastructure costs.

Response: The northern El Paso County water being utilized by this FAWA project will be utilized exclusively by Falcon area water providers serving customers in developments that have been found consistent with the County Master Plan. Conversely, encouraging the use of this water in the areas where it is located would likely not be consistent with this policy.

Policy 5.5.1 – Discourage individual wells for new subdivisions with 2.5 acre or smaller average lot sizes, especially in the near-surface aquifers, when there is a reasonable opportunity to connect to an existing central system, alternatively, or construct a new central water supply system when the economies of scale to do so can be achieved.

Response: The FAWA project opens up opportunities for central water systems on large-lot subdivisions near its facilities. The applicant is in conversation with several property owners who are exploring the possibility of diverting water from the FAWA pipeline to serve large lots rather than installing individual wells.

Goal 6.3.1 – Secure and deliver additional long-term water supplies. Policy 6.3.1.3 – Encourage water providers to pursue additional water storage opportunities, including surface storage as well as storage in both bedrock and alluvial aquifers.

Response: FAWA's pipeline system is being designed to permit the reversing of flows and the wells will be valved to accommodate the use of the aquifers for future storage.

Policy 6.3.2.2 – Encourage formal agreements among water districts to mitigate potential water supply shortages among individual suppliers.

Response: The Falcon Area Water Authority is envisioned to be an umbrella entity through which its member districts can work to mitigate supply shortages. It is thought to be a more realistic method of encouraging cooperation among the Falcon area water providers than other County-wide water authorities.

Policy 6.4.1.1 – Promote “conjunctive use” of water, favoring use of renewable surface and alluvial supplies during wet and normal years balanced by using a greater share of nonrenewable Denver Basin supplies in dry years.

Response: As stated above, it is hoped that FAWA's ability to utilize Aquifer Storage and Recovery or Managed Aquifer Recharge programs in the deep northern county aquifers can be combined over time with the use of renewable supplies. This opportunity will either require the cooperation of the City of Colorado Springs or, in the alternative, agreements between FAWA and perhaps Cherokee Metropolitan District and Widefield Water & Sanitation District to bypass the City to directly access Fountain Creek.

Falcon/Peyton Comprehensive Plan, Goals, Policies and Proposed Actions.

B. 1. Goals: a. Protect the quality and quantity of water supplies in the planning area. 2. Policies: a. Require that all new development proposals adequately demonstrate that they will not have an adverse impact upon the quality and quantity of water available to existing and future rural residential areas.

Response: The importation of water from outside the Falcon/Peyton Planning area will lessen adverse impacts on the area's water tables and residential areas.

- (d) Specify whether and how the proposed Project conforms to applicable regional and state planning policies.

The Applicant is not aware of applicable regional and state planning policies. However, the purpose of this project is to supply water to development that would be approved under similar but separate processes through El Paso County and CDPHE regarding water availability.

- (e) Specify whether and how the proposed Project conforms to applicable federal land management policies.

No federal lands are anticipated to be affected by this project.

- (f) If relevant to the Project design, describe the agricultural productivity capability of the land in the Project area, using Soils Conservation Service soils classification data.

The Project will be entirely underground with the exceptions of well heads and one equalization tank. The main pipeline will be located within the Xcel power line corridor and County rights of way, neither of which are being currently used for agricultural purposes.

- (g) Describe the probability that the Project may be significantly affected by earthquakes, floods, fires, snow, slides, avalanches, rockslides or landslides and any measures that will be taken to reduce the impact of such events upon the Project.

It is unlikely that the project would experience the occurrences listed above other than snow and possibly fire and flooding. The proposed pipeline crosses two narrow areas of 100-year floodplain along the creeks. The proposed pipeline will be located within the service areas of the Falcon Fire Protection District and the Black Forest Fire Rescue Protection District in an un-forested area. For the reasons given above, the above described occurrences are unlikely to adversely impact the project.

- (h) Specify if excess service capabilities created by the proposed Project will prove likely to generate sprawl or strip development.

The service areas of the FAWA members have previously been found to be in compliance with the County's Master Plan and Small Area plans and are believed to be consistent with the recently adopted County Master Plan. The FAWA Project is not expected to have excess service capabilities.

- (i) Specify whether the demand for the Project is associated with development within or contiguous to existing service areas.

The demand for the FAWA Project is entirely associated with development within the service areas of its members.

- (8) The applicant shall supply a surface and subsurface drainage analysis.

Due to the nature of the pipeline and wells (being predominately underground), an overall drainage analysis is not anticipated. The only impact to surface drainage shall be during construction and due to the well houses. Drainage impact during construction shall be addressed in the ESQCP permit application and all applicable BMPs shall be followed. It is anticipated that the well houses shall have approximately 160 square foot areas. The impact to surface drainage of each well house will be analyzed in a drainage report or letter to be submitted during the site development plan process.

Subsurface drainage will not be affected by the pipeline, wells, or other appurtenances. Should ground water be encountered during construction, the applicable dewatering permit shall be obtained from the State of Colorado.

- (9) Financial feasibility of the Project.

- (a) Relevant bond issue, loan and other financing approvals or certifications (ex: approved bond issues; bond counsel opinion).

FAWA intends to issue bonds to be secured by water tap fees and water acquisition fees. FAWA has been working with a municipal bond firm with extensive experience in El Paso County. The bond summary is included in Appendix J.

- (b) Business plan that generally describes the financial feasibility of the Project.

Please see Appendix J.

- (10) Local infrastructure and services impacts. An impact analysis that addresses the manner in which the applicant will comply with the relevant Permit Application Review Criteria. The impact analysis shall include the following information: description of existing capacity of and demand for local government services including but not limited to roads, schools, water and wastewater treatment, water supply, emergency services, transportation, infrastructure, and other services necessary to accommodate the Project within El Paso County.

The water line will not have a significant impact on public infrastructure. The water line will connect to existing infrastructure within the Falcon area.

Roads:

In the northern portion of the project, the proposed waterline follows lengths of Bar-X Road and Hodgen Road. In the southern portion of the project, the proposed waterline would be installed within the ROW of Rex Road and Arroyo Lane in areas.

During construction: Public right-of-way along Arroya Lane, Rex Road, Hodgen Road, and Bar-X Road will be impacted during construction of the water line. Traffic control will be implemented to mitigate this short-term impact to the roadways and their rights-of-way. In addition, the waterline will be installed along a length of the Xcel transmission line within Xcel

right-of-way, but no impacts to the transmission lines are anticipated. (Put under the Road section above)

Schools:

The water line will have no impact on schools.

Water and Wastewater Treatment:

Aside from requiring an expansion of the existing water treatment facility, the water line will have no impact on water or wastewater treatment.

Water Supply:

The water line will have no negative impact on water supply. The already-approved water storage tank on Sterling Ranch (which this pipeline will feed) will increase the water supplies of Sterling Ranch and adjacent developments.

Emergency Services:

The proposed waterline will be within the Falcon Fire Protection District and the Black Forest Fire/Rescue Protection District. The Fire Districts will be notified of construction of the new facilities. FAWA will be installing fire hydrants and has been working with the Falcon Fire Protection District to determine the best locations (Appendix K).

Transportation:

The proposed pipeline will have no significant long-term impacts on transportation.

Infrastructure:

As noted above, the proposed facilities create infrastructure to serve development within the service areas of FAWA's members.

Drainage:

Section 8 discusses the impact of the proposed facilities on the overall drainage in the area.

- (11) Recreational Opportunities. Description of the impacts and net effect of the Project on present and potential recreational opportunities.

FAWA's members are responsible to construct and maintain parks, recreation facilities, and open spaces to serve development within the District. As development occurs within their boundaries, public recreation opportunities will be provided. This project is integral to supporting these recreational opportunities by providing potable water in the event that the recreation improvements require water for irrigation or bathrooms.

- (12) Areas of Paleontological, Historic or Archaeological Importance. Description of the impacts and net effect of the Project on sites of paleontological, historic or archaeological interest.

Coordination with the Colorado State Historical Preservation Office (SHPO) was conducted in June of 2019 to determine if any previously recorded cultural resource sites exist within 100 feet of the proposed waterline alignment. According to the SHPO, six cultural resource surveys had previously been conducted in the search area.

Four historic-age sites were recorded: a steel stringer bridge built in 1950, a barn dating back to 1885, an abandoned townsite from between 1873 to 1920, and a site with a house, one-room school, and an outbuilding dating back to the 1880s.

- *The historic age bridge is located on Hodgen Road over West Kiowa Creek. It has been assessed as officially not eligible to be listed in the National Register of Historic Resources.*
- *The circa 1885 barn, referred to as the J.G. Evans Barn, has been determined to be officially eligible for listing on the National Register. It is located along the north side of Hodgen Road approximately 0.25 mile east of Black Forest Road. It was observed during the field investigation in June 2019. The proposed waterline will stay within the Hodgen Road right-of-way and will not impact this cultural resource.*
- *The abandoned townsite that dates back to 1873 to 1920 is unlocatable according to the SHPO's files. It is listed as abandoned. Since no location is known for this site, it is likely not in existence any longer.*
- *The last recorded site is a ranch complex with a house, school, outbuilding, garage, and fence. Records show it south of Hodgen Road, approximately 0.25 mile east of Black Forest Road (across from the J.G. Evans Barn). However, this site has not been assessed for eligibility. SHPO records indicate this site may have been moved elsewhere. The proposed waterline will stay within the Hodgen Road right-of-way in this area and will not impact this ranch complex.*

This project would have no effect on listed cultural resources. In the event a paleontological or archeological site is discovered during construction of the project, all activities would cease and the SHPO would be contacted to determine how to proceed.

- (13) Nuisance. Descriptions of noise, glare, dust, fumes, vibration, and odor levels anticipated to be caused by the Project.

During construction, typical amounts of noise and dust will be generated. The contractor shall be required to perform dust abatement as necessary to limit the amount of dust generated during construction. Noise levels will be typical of heavy equipment. Contractor working hours will be established to limit noise impact during daytime hours.

During operation, the pipeline will not produce any noise, glare, dust, fumes, vibration or odors.

- (14) Air Quality. Description of the impacts and net effect that the Project would have on air quality during both construction and operation, and under both average and worst case conditions, considering particulate matter and aerosols, oxides, hydrocarbons, oxidants, and other chemicals, temperature effects and atmospheric interactions.

No adverse impacts on air quality are anticipated other than temporary dust issues discussed in Item 13. As noted earlier, a Construction Activity Permit and an ESQCP will be obtained for construction of the project which will address dust mitigation.

- (15) Visual Quality. Description of the impacts and net effect that the Project would have on visual quality, considering viewsheds, scenic vistas, unique landscapes or land formations within view of the Project area.

The view of the mountains, while not specifically designated as a scenic vista, is important. The proposed pipeline would be installed underground and after construction is complete, the areas in and along the new waterline will have the same views as before. No unique landscapes or land formations were observed during the field investigations in June and October of 2019.

(16) Surface Water Quality.

- (a) Map and/or description of all surface waters relevant to the Project, including description of provisions of the applicable regional water quality management plan, and NPDES Phase II Permit and necessary El Paso County Erosion and Stormwater Quality Control Permit (“ESQCP”), Section 404 Federal Clean Water Act Permit that applies to the Project and assessment of whether the Project would comply with those provisions.

Field surveys were conducted on June 26, 2019 and October 17, 2019 to identify surface water resources within the project area. A total of seven swales, two jurisdictional waters, and two wetlands were delineated during the field surveys (Table 1). The swales are drainages that do not exhibit ordinary high-water marks (OHWM) and are therefore unlikely to be considered jurisdictional by the U.S. Army Corps of Engineers. Refer to Appendix L for a wetlands map and wetland area determinations.

Table 1. Swales, Waters, and Wetlands within the Project Area

<i>Name</i>	<i>USGS Name</i>	<i>Length in Project Area</i>	<i>Area in Project Area</i>	<i>Impacts to Jurisdictional Waters</i>
<i>Swale 1</i>	<i>Unnamed tributary to East Cherry Creek</i>	<i>105 feet</i>	<i>--</i>	<i>None</i>
<i>Swale 2</i>	<i>East Cherry Creek</i>	<i>96 feet</i>	<i>--</i>	<i>None</i>
<i>Water 1</i>	<i>Tributary to East Cherry Creek</i>	<i>86 feet</i>	<i>0.005 acre</i>	<i>None – waterline will be bored under Water 1</i>
<i>Wetland 1</i>	<i>West Kiowa Creek</i>	<i>--</i>	<i>0.08 acre</i>	<i>None – waterline will be bored under Wetland 1</i>
<i>Wetland 2</i>	<i>Snipe Creek</i>	<i>--</i>	<i>0.02 acre</i>	<i>0.01 acre temporary impacts</i>
<i>Water 2</i>	<i>Black Squirrel Creek</i>	<i>121 feet</i>	<i>0.02 acre</i>	<i>0.02 acre temporary impacts</i>
<i>Swale 3</i>	<i>Unnamed Tributary to Black Squirrel Creek</i>	<i>200 feet</i>	<i>--</i>	<i>None</i>
<i>Swale 4</i>	<i>Unnamed Tributary to Black Squirrel Creek</i>	<i>104 feet</i>	<i>--</i>	<i>None</i>

Swale 5	Unnamed Tributary to Black Squirrel Creek	122 feet	--	None
Swale 6	Unnamed Tributary to Black Squirrel Creek	102 feet	--	None
Swale 7	Unnamed Tributary to Black Squirrel Creek	114 feet	--	None

Water 1 is an unnamed tributary to East Cherry Creek. The width of the OHWM is approximately 2 feet within the project area. Since the waterline will be bored under Water 1, no impacts are anticipated at this jurisdictional water.

Water 2 is Black Squirrel Creek. The width of the OHWM varies from approximately 6 to 10 feet. Approximately 0.02 acre of this jurisdictional water would be temporarily impacted by installation of the waterline, which is anticipated to be open-cut in this location.

*Wetland 1 lies within West Kiowa Creek. Dominant vegetation observed in the wetland includes cattail (*Typha latifolia*) and mountain sedge (*Carex scopulorum*). Hydric soil indicator redox dark surface (F6) was found in the soil in the wetland. Wetland hydrology indicators observed include surface water, high water table, and saturation. The wetland data form completed at this site is included as "wet2". Since the waterline would be bored under this wetland, no wetland impacts are anticipated.*

*Wetland 2 lies within Snipe Creek. Dominant vegetation observed in the wetland includes Drummond's rush (*Juncus drummondii*) and mountain sedge (*Carex scopulorum*). Hydric soil indicator redox dark surface (F6) was found in the soil in the wetland. Wetland hydrology indicators observed include sediment deposits, algal mat or crust, drainage patterns, and geomorphic position. The wetland data form completed at this site is included as "wet4". Approximately 0.01 acre of temporary impacts to this wetland would occur as a result of the proposed project.*

Temporary fills must be removed in their entirety and the affected areas returned to pre-construction elevations. Temporary impacts to jurisdictional waters and emergent wetlands are covered under Nationwide Permit (NWP) 12 and do not require a Pre-Construction Notification (PCN) to be submitted to the USACE. Therefore, this project would be permitted under NWP 12 with no PCN necessary.

The project will comply with all applicable regulations and standards regarding water quality and an ESQCP will be obtained from El Paso County for construction.

- (b) Existing data monitoring sources.

There are no known surface water monitoring stations in or adjacent to the project site.

- (c) Descriptions of the immediate and long-term impact and net effects that the Project would have on the quantity and quality of surface water under both average and worst-case conditions.

The proposed pipeline will not impact surface water quality or quantity. During construction, erosion control measures will be in place to prevent the transport of sediment during storm events. After construction is complete, all disturbed areas (outside of roadways) will be revegetated and returned to their original state.

There is no grading involved with the pipeline. Therefore, the direction of all surface water flows will remain unchanged.

(17) Groundwater Quality.

- (a) Map and/or description of all groundwater, including any and all aquifers relevant to the Project. At a minimum, the description should include:

- i. Seasonal water levels in each portion of the aquifer affected by the Project.

The wells proposed for this project are all in the Denver, Arapahoe and Laramie-Fox Hills aquifers which are all confined aquifers. As such, the water level in these aquifers does not change seasonally.

- ii. Artesian pressure in said aquifers.

The aquifers that will be affected by the project are not artesian and do not have positive pressure above the water surface level.

- iii. Groundwater flow directions and levels.

Since the aquifers which will have wells developed in them are confined, they don't experience groundwater flow. Alluvial groundwater flows generally from north to south or southwest.

- iv. Existing aquifer recharge rates and methodology used to calculate recharge to the aquifer from any recharge sources.

The Arapahoe and Laramie-Fox Hills Aquifers are non-tributary and have a 2% return flow requirement in the water rights decrees. This return flow will be accomplished by the Lawn Irrigation Return Flow (LIRF). The water rights decrees are contained in Appendix C.

- v. For aquifers to be used as part of a water storage system, methodology and results of tests used to determine the ability of the aquifer to impound groundwater and aquifer storage capacity.

As stated above, Aquifer Storage and Recovery ("ASR") or Managed Aquifer Recharge ("MAR") programs are planned in the future for the Arapahoe and Laramie-Fox Hills aquifers. However, until such time as the water levels in these aquifers are drawn down there is no storage capacity.

- vi. Seepage losses expected at any subsurface dam and at stream-aquifer interfaces and methodology used to calculate seepage losses in the affected streams, including description and location of measuring devices.

There are no subsurface dams or stream-aquifer interfaces that the project is anticipated to affect or come in contact with.

- vii. Existing groundwater quality and classification.

The groundwater in the project area is EPA Class II – Potential or current drinking water. The water from the Denver, Arapahoe, and Laramie-Fox Hills aquifers will need to be treated prior to distribution.

- viii. Location of all water wells potentially affected by the Project and their uses.

Maps of the water wells that are part of this project are in Appendix B. These wells provide the source water to be conveyed by the pipeline.

Wells that are not associated with this project will not be affected. Depths, flow rates, locations, etc. of the source wells are determined and approved by the Division of Water Resources.

- (b) Description of the impacts and net effect of the Project on groundwater.

Since the Arapahoe and Laramie-Fox Hills aquifers are confined, water use from them will reduce the volume in the aquifers. All water use will be in accordance with the water rights decrees and subsequent well permits, Appendix C.

(18) Water Quantity.

- (a) Map and/or description of existing stream flows and reservoir levels relevant to the Project.

The project will not rely on stream flows or reservoirs so this item is not applicable.

- (b) Map and/or description of existing minimum stream flows held by the Colorado Water Conservation Board.

Since the stream flow will not be affected by the project, this item is not applicable.

- (c) Descriptions of the impacts and net effect that the Project would have on water quantity.

Only aquifer water quantity (from the source wells) will be affected by the project.

- (d) Statement of methods for efficient utilization of water, including recycling and reuse.

As mentioned previously, FAWA members will use LIRF to accomplish their return flows. Sterling Ranch's IGA with Meridian allows for the possibility for treated effluent to be used as return flow as well.

- (19) Floodplains, Wetlands and Riparian Areas; Terrestrial and Aquatic Animals, Plant Life and Habitat. Applicant shall only provide description of foregoing natural conditions, animal and plant life at, but not to exceed, the level of detail required by other federal or state Permits or reviews which are applicable to the Project.

According to the Federal Emergency Management Agency (FEMA) floodplain shapefiles, most of the project lies within Zone X, defined as areas outside the 100-year floodplain. The proposed waterline crosses two areas of Zone A, which are areas with a 1 percent annual chance of flooding. These two areas are along West Kiowa Creek and Black Squirrel Creek. Appendix M contains the current Flood Insurance Rate Maps (FIRM) within the project area.

*Terrestrial animal species observed during the field investigations include red-winged blackbird (*Agelaius phoeniceus*), Steller's jays (*Cyanocitta stelleri*), American robin (*Turdus migratorius*), house sparrow (*Passer domesticus*), and field mice (*Apodemus sylvaticus*). No aquatic animal species were observed. Typical vegetation found within the project area includes introduced and native grass and herbaceous species, such as side oats grama (*Bouteloua curtipendula*), little bluestem (*Schizachyrium scoparium*), prairie dropseed (*Sporobolus heterolepis*), aster (*Aster sp.*), western ragweed (*Ambrosia psilostachya*), yarrow (*Achillea millefolium*), cattail (*Typha latifolia*), pepperweed (*Lepidium virginicum*), sweet yellow clover (*Melilotus officinalis*), and prickly pear (*Opuntia polycantha*). Shrub and tree species observed include ponderosa pine (*Pinus ponderosa*), narrowleaf willow (*Salix exigua*), and Great Plains cottonwood (*Populus deltoides*).*

According to the official species listed obtained from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website accessed on June 4, 2019, there are 10 threatened, endangered, or proposed threatened species that could potentially occur in the project area (Table 2). There are no critical habitats within the project area. As shown in Table 2, no suitable habitat for any of these listed or proposed listed species was identified within the project area. Therefore, the proposed project will not affect any federally listed species.

Table 2. Listed Species of Potential Occurrence in the Project Area

<i>Species</i>	<i>Federal Status</i>	<i>Suitable Habitat</i>	<i>Habitat within Project Area?</i>
<i>North American Wolverine (Gulo gulo luscus)</i>	<i>Proposed Threatened</i>	<i>High, alpine environments</i>	<i>No</i>
<i>Preble's Meadow Jumping Mouse (Zapus hudsonius preblei)</i>	<i>Threatened</i>	<i>Well-developed plains riparian vegetation with adjacent, relatively undisturbed grassland communities and a nearby water source. These riparian areas include a relatively dense combination of grasses, forbs, and shrubs</i>	<i>No</i>
<i>Least Tern (Sterna antillarum)*</i>	<i>Endangered</i>	<i>Sandy or pebbly beaches, well above the water line, around lakes and reservoirs or on sandy soil sandbars in river channels</i>	<i>No</i>
<i>Mexican Spotted Owl (Strix occidentalis lucida)</i>	<i>Threatened</i>	<i>Mixed conifer forests, Madrean pine-oak forests, and rocky canyons</i>	<i>No</i>

<i>Piping Plover</i> (<i>Charadrius melodus</i>)*	<i>Threatened</i>	<i>Sandy lakeshore beaches, sandbars within riverbeds or even sandy wetland pastures. An important aspect of this habitat is that of sparse vegetation</i>	<i>No</i>
<i>Whooping Crane</i> (<i>Grus americana</i>)*	<i>Endangered</i>	<i>Mudflats around reservoirs and in agricultural areas. While wintering, they live on salt flats that are dominated by coastal salt grass. Their nesting grounds are wetland communities dominated by bulrush</i>	<i>No</i>
<i>Greenback Cutthroat Trout</i> (<i>Oncorhynchus clarkia stomias</i>)	<i>Threatened</i>	<i>Cold, clear, gravely headwater streams and mountain lakes which provide an abundant food supply of insects</i>	<i>No</i>
<i>Pallid Sturgeon</i> (<i>Scaphirhynchus albus</i>)*	<i>Endangered</i>	<i>Pallid sturgeons evolved and adapted to living close to the bottom of large, silty rivers with natural a hydrograph. Their preferred habitat has a diversity of depths and velocities formed by braided channels, sand bars, sand flats and gravel bars</i>	<i>No</i>
<i>Ute Ladies'-tresses</i> (<i>Spiranthes diluvialis</i>)	<i>Threatened</i>	<i>Occurs along riparian edges, gravel bars, old oxbows, high flow channels, and moist to wet meadows along perennial streams. It typically occurs in stable wetland and seepy areas associated with old landscape features within historical floodplains of major rivers. Also found in wetland and seepy areas near freshwater lakes or springs</i>	<i>No</i>
<i>Western Prairie Fringed Orchid</i> (<i>Platanthera praeclara</i>)*	<i>Threatened</i>	<i>Moist tallgrass prairies and sedge meadows</i>	<i>No</i>

**These species only need to be considered under the following conditions: Water-related activities/use in the N. Platte, S. Platte, and Laramie River Basins may affect listed species in Nebraska.*

Coordination with the Colorado Natural Heritage Program (CNHP) department at Colorado State University was completed in November of 2019. The Biodiversity Tracking and Conservation System (BIOTICS) was searched for natural heritage elements (occurrences of significant natural communities and rare, threatened, or endangered plants and animals) documented within one mile of the proposed project. There are CNHP-designated Potential Conservation Areas (PCAs) and no Network of Conservation Areas (NCA) overlapping the search area. The PCAs focus on capturing the ecological processes that are necessary to support the continued existence of a particular element of natural heritage significance. Conservation areas may include a single occurrence of a rare element or a suite of rare elements or significant features.

*The proposed waterline crosses two areas of the Pineries at Black Forest PCA. These PCAs encompass the locations for the Richardson's alumroot (*Heuchera richardsonii*) and a relatively intact portion of ponderosa pine communities. However, in these two areas, the waterline runs parallel to Hodgen Road (and stays within its right-of-way) and the Excel transmission lines (and stays within its right-of-way but not under the lines). Since these areas are already cleared of the typical vegetative assemblages the PCA aims to preserve and are regularly mowed and maintained, it is not expected that the proposed waterline would adversely impact Richardson's alumroot or ponderosa pine communities in the PCAs.*

The southwestern tip of the proposed waterline extends into the Fountain Creek PCA. The Fountain Creek site includes three areas that are known to be used by wintering Bald Eagles for roosting and feeding. Though the proposed waterline extends into this area, no Bald Eagle habitat was observed in the area the waterline is proposed to be installed. In fact, this segment of waterline would be installed along a dirt road.

Correspondence documentation from the CNHP is included in Appendix N.

(20) Soils, Geologic Conditions and Natural Hazards.

- (a) Map and/or description of soils, geologic conditions, and natural hazards including but not limited to soil types, drainage areas, slopes, avalanche areas, debris fans, mud flows, rock slide areas, faults and fissures, seismic history, and wildfire hazard areas, all as relevant to the Project area.

The soils in the project area fall into NRCS Soil Group B. Soil Group B is described as soils having moderate infiltration rate when thoroughly wet. These soils consist primarily of moderately deep or deep, moderately well drainage or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission. These soil characteristics result in moderate to low runoff potential. The slopes in the project area are moderate and stable. No avalanche areas, debris fans, mud flows, rock slide areas, or faults and fissures were identified in the project area. There is no significant historic seismic activity and the potential for seismic activity in the project area is minimal.

The project area includes portions of Black Forest which is at a relatively high risk of wildfire. The proposed infrastructure will not contribute to increase fire danger and by providing fire hydrants, the project will aid in mitigating the hazard presented by wildfires.

- (b) Descriptions of the risks to the Project from natural hazards.

It is unlikely that the project would experience natural hazards other than snow and possibly fire and flooding. The proposed pipeline crosses two narrow areas of 100-year floodplain along the creeks. The design of the pipeline will account for potential scour from the creeks to ensure the depth of the pipeline is adequate. The proposed pipeline will be located within the service areas of the Falcon Fire Protection District and the Black Forest Fire Rescue Protection District in a primarily un-forested area. For the reasons given above, the above described occurrences are unlikely to adversely impact the project.

- (c) Descriptions of the impacts and net effect of the Project on soil and geologic conditions in the area.

The project will have no adverse impacts on soil and geologic conditions.

(21) Hazardous Materials.

- (a) Description of all solid waste, hazardous waste, petroleum products, hazardous, toxic, and explosive substances to be used, stored, transported, disturbed or produced in connection with the Project, including the type and amount of such substances, their location, and the practices and procedures to be implemented to avoid accidental release and exposure.

There are no solid, hazardous, or toxic wastes anticipated from the construction or operation of this project, neither will any explosives be used during or after construction.

Bulk storage structures for petroleum products and other chemicals shall have adequate protection to contain all spills and prevent any spilled material from entering state waters, including any surface or subsurface storm drainage system facilities.

- (b) Location of storage areas designated for equipment, fuel, lubricants, and chemical and waste storage with an explanation of spill containment plans and structures.

As stated in 21(a) above, bulk storage structures for petroleum products and other chemicals shall have adequate protection to contain all spills and prevent any spilled material from entering state waters, including any surface or subsurface storm drainage system facilities.

Storage areas designated for equipment, fuel, lubricants, chemical waste, and other wastes will be located at pre-determined sites where construction is taking place. These storage areas will prevent spilled materials (i.e. oil leaks, fuel leaks of construction equipment) from entering downstream drainage facilities and be staged along the pipeline where construction is occurring. None of the storage areas will be permanent – they will only need to be utilized during construction.

- (22) Monitoring and Mitigation Plan.

- (a) Description of all mitigation that is proposed to avoid, minimize or compensate for adverse impacts of the Project and to maximize positive impacts of the Project.

Mitigation measures proposed to avoid, minimize or compensate for adverse impacts include:

- *Erosion control and Best Management Practices (BMPS)*
 - o *Vehicle Tracking Control Pads (to prevent sediment and debris from impacting paved roads during construction)*
 - o *Silt fencing*
 - o *Straw bale barriers*
- *Storage areas for all wastes during construction*
- *Revegetation after construction*
- *Construction only during daytime hours to prevent noise and light pollution*
- *Construction water for dust abatement during construction*

Materials used to maximize positive impacts include:

- *High-Density Polyethylene (HDPE) pipe to prevent corrosion and leaks at joints (welded joints)*
- *Polyvinyl Chloride (PVC) pipe to prevent corrosion*
- *Buried valve and vault appurtenances to avoid visual impacts*
- *Casing of pipe in lowerings and below sensitive locations (streams, rivers, etc.) to avoid water leaks that could occur if scouring of these areas were to expose the pipe.*

- i. Describe how and when mitigation will be implemented and financed.

The components of the project described in 22(a) are integral to the design of the project and will be implemented during construction.

Section 4(d) describes how the project will be financed, and the mitigation measures (temporary and permanent) described above will also be part of the overall cost of the project.

- ii. Describe impacts that are unavoidable that cannot be mitigated.

Construction of the pipeline will create the need to revegetate all disturbed areas. For paved roadway crossings, the pavement will need to be replaced, along with any curb & gutter impacted during construction.

- (b) Description of methodology used to measure impacts of the Project and effectiveness of proposed mitigation measures.

A Stormwater Management Plan (SWMP) with accompanied Erosion and Stormwater Quality Control Permit (ESQCP) will be required during construction. This also includes an inspection and maintenance log containing:

- *Inspections*
- *Maintenance*
- *Corrective Actions*

... all regarding erosion control and materials handling.

The project will be collateralized with The County until revegetation has reached 70% of the pre-disturbed vegetative coverage.

- (c) Description, location and intervals of proposed monitoring to ensure that mitigation will be effective.

The items mentioned in 22(b) above will be located with the construction management firm and with the contractor on site.

Daily and weekly inspections will be made to determine if corrective actions are needed to conform to the approved SWMP and ESQCP.

Both the contractor and construction management firm will ensure all mitigation measures are in place during daily and weekly checks to minimize negative impacts of the project.

- (23) Additional Information. The Director may request that the applicant supply additional information related to the Project if the Director and/or the Permit Authority will not be able to make a determination on any one of the applicable Review Criteria without the additional information. Such additional information may include applicant's written responses to comments by a referral agency.

Noted.