8. Permitting and Administrative Requirements

8.1. Introduction

Major projects, such as the Lewis & Clark Rural Water Project, require various permits, clearances and certifications. In addition, land use and occupancy by the various project components and pipelines will require land acquisition, easements and leases. Acquisition of these various permits and land use documents constitutes a significant effort in time and money. The Lewis & Clark project will be constructed in phases, and each phase in multiple construction contracts to match availability of funding, appropriate construction sequence and other factors. Most of these permits and land use documents required for the work involved in each construction contract should be secured prior to bidding the contract in question due to the complexity and long lead times necessary to obtain these permits and land use documents. Other permits which are specific to a construction contractor's operation and method of construction should be made the responsibility of the contractor and can only be secured following contract award.

Additional discussion and information regarding regulatory requirements are included in the *Draft Environmental Assessment for the Lewis and Clark Rural Water System, South Dakota, Minnesota and Iowa* prepared for this project by TRC Mariah Associates Inc. for Reclamation. The project would comply with relevant Federal, state and local laws and regulations. The *Draft Environmental Assessment for the Lewis and Clark Rural Water System, South Dakota, Minnesota and Iowa* includes a listing of environmental statutes and authorizing actions (e.g. permitting requirements) relevant to this project – this listing is reproduced in Appendix A-8.

A summary of the permits and land use documents which should be secured by Lewis & Clark, as well as permits required by the construction contractor, are identified in this section of the Final Engineering Report. The following sections are based on permits, authorizations and certifications that are required for most projects of this nature. Although this listing is extensive, other permits or authorizations may be required.

8.2. Permits and Other Project Requirements to be Secured by Lewis & Clark

Construction of a major public works project of the nature of the proposed Lewis & Clark Rural Water System will require several permits for construction. Due to the complexity and lead time required, the

following permits should be negotiated and secured prior to bidding each individual construction contract. Permits required will include the following:

8.2.1. Dredge and Fill Permits (Section 404 and Nationwide)

The U.S. Army Corps of Engineers, under Section 404 of P.L. 92-500 (the Clean Water Act), requires permits to authorize dredging or placement of fill in the waters of the United States. Individual 404 permits, Nationwide Permit authorization, or both, will be required to permit pipeline crossings of streams, rivers and wetlands and potentially, construction of other structures.

Typically, the Corps requires an individual 404 permit for "higher" impact construction activities involving perennial stream crossings, i.e. the Big Sioux River, Rock River and other larger perennial streams. Generally, a permit is required to place fill material or to dredge material from a stream channel or other body of water. The Corps may require a public hearing to discuss the application and take public comments.

Most of the smaller, intermittent and ephemeral stream crossings may be permitted under a Nationwide Permit. The Nationwide Permit process provides a "blanket" permit for the majority of activities anticipated for this project. The Nationwide Permit process is usually simpler and less time consuming than the 404 Permit process. Nationwide Permit authorization is made for each stream or wetland crossing. A final determination of the actual permitting requirements by the Corps will be made as the project progresses. Projects similar to this project have required a combination of both 404 and Nationwide Permits.

Normal processing time for a non-controversial 404 Permit application is two to three months; however, an allowance of six months should be provided. The time frame to secure permitting or authorization from the Corps is dependent upon the need for an Environmental Assessment and the necessity to acquire 404 Permits rather than Nationwide Permit authorization.

Project layout criteria will be to avoid encroachment of wetland and riparian areas, as much as is practicable. Stream crossings, where feasible, will be constructed using directional drilling techniques to avoid open cut construction in the stream channels to eliminate temporary water quality degradation, the risk involved with stream diversion and to avoid excavation of highly erosive stream banks. These construction techniques and engineering designs may significantly reduce permitting requirements.

However, it will not be practical to avoid open cut construction for larger pipelines and where geological conditions (large cobbles and boulders in the river stratum) make directional drilling impractical.

8.2.2. Section 401 Certification

The various state environmental regulatory agencies (South Dakota DENR, Minnesota Department of Health, and Iowa DNR), under Section 401 of the Clean Water Act, will review the application for 404 Permit activities with the intent to certify project activities in accordance with the Act. Normally, no additional requirements over and above the 404 Permit are required, and if they are, these requirements are incorporated into the 404 Permit. Processing of the 401 Certification is concurrent with the 404 Permit process.

8.2.3. Highway Crossing and Occupancy Permits

The proposed water transmission and distribution pipelines will cross various state, county and local roads and highways – see Appendix A-3 for a listing of all currently identified crossings. Permits or licenses for crossings will be required for pipelines. Also, portions of the pipelines may occupy highway rights-of-way for purposes other than highway crossings. Occupancy permits, or easements, will be required for portions of pipelines located in road and highway rights-of-way. However, it is the intent of the pipeline layout to occupy lands outside state, county and local highway rights-of-way. Also, approaches will be constructed from existing roadways for project facilities including wells, the water treatment plant, pump stations, service connections and reservoirs.

Highway crossings will be made by boring or jacking methods for all state highways and most other hard surfaced roads. Unpaved gravel or dirt roads will be crossed either by boring/jacking methods or by open-cut trenching, if allowed by the agency having jurisdiction. The crossing method will depend upon the level of traffic disruption, requirements of the agency and construction needs. Depending on the level of service and the condition of minor paved roads and agency requirements, crossings may also be constructed using open-cut trenching with compacted fill and pavement patch repair. Some jurisdictions may not allow open cut crossing techniques, even on gravel surfaced roads. Pipe encasement would not be provided unless required by the crossing permit or if it is appropriate for the construction technique.

Crossings, construction and repairs will be performed in accordance with the requirements of the appropriate entity. It will also be important to coordinate with the appropriate agencies to discuss and schedule construction activities, detours and temporary road closings (if required).

8.2.3.1. US and State Highways

The proposed water transmission and distribution pipelines will cross or parallel various state highways in the three states in which the project will be constructed. The highways include interstate, primary and secondary routes. The pipelines will cross or parallel the following routes (all are related to the Treated Water Pipeline System unless otherwise noted):

South Dakota -

- State Highway 19 – approaches for well field access roads and occupy right-of-way south of Vermillion (Raw Water Pipeline)
- State Highway 50 and 50 Bypass – crossing west of Vermillion (Raw Water Pipeline)
- State Highway 19 – potential approaches north of Vermillion (Water Treatment Plant)
- State Highway 19 – crossing, north of Vermillion
- State Highway 46 – crossing, west of Beresford
- State Highway 17 – crossing, east of Centerville (service line)
- US Highway 18 – crossing, south of Lennox
- State Highway 44 – crossing, south of Lennox
- State Highway 17 – crossing, east of Lennox (service line)
- State Highway 17 – crossing, north of Lennox
- State Highway 19 – crossing, east of Parker
- State Highway 44 – possibly occupy right-of-way in Parker
- State Highway 42 (W 12th Street) – crossing, west of Sioux Falls
- I-29 – crossing, Sioux Falls service line
- State Highway 115 (Minnesota Avenue) – crossing, Sioux Falls service line
- State Highway 38 – crossing, north of Sioux Falls
- I-90 – crossing, north of Sioux Falls
- State Highway 34 – crossing, east of Madison
- I-29 – crossing, west of Beresford
- State Highway 11 – crossing, east of Beresford
- State Highway 46 – crossing, east of Beresford (north of Haywarden, IA)

- I-29 – crossing, south of Sioux Falls
- State Highway 115 (Minnesota Avenue) – crossing, south of Sioux Falls
- State Highway 11 (Schindler Road) – crossing, south of Sioux Falls
- State Highway 42 – crossing, east of Sioux Falls (MCWC service line)

Minnesota -

- State Highway 270 – crossing, east of Hills
- US Highway 75 – crossing, south of Luverne
- I-90 – crossing, south of Luverne
- I-90 – crossing, west of Adrian
- State Highway 91 – crossing, Adrian
- US Highway 59/State Highway 60 – may occupy right-of-way, Worthington

Iowa -

- State Highway 75 – crossing, north of Sioux Center
- US Highway 18 – crossing, west of Hull
- US Highway 18 – crossing, west of Sheldon (Rural Water No. 1 service line)
- State Highway 60 – crossing, north of Sheldon (new route is east of Sheldon)
- US Highway 59 – crossing, north of Sanborn
- US Highway 71 – crossing, north of Spencer
- State Highway 9 – crossing, east of Spirit Lake
- State Highway 9 – crossing, west of Larchwood
- State Highway 9 – crossing, north of Sibley
- State Highway 60 – crossing, north of Sibley(new route is east of Sibley)
- State Highway 75 – crossing, north of Rock Rapids

Occupancy permits for crossings will be required for pipelines crossing state highway rights-of-way and other project related improvements, such as approaches.

Currently, it is known that three of the major highways in the project area will be reconstructed in the next few years. It would be desirable to coordinate pipeline design activities with the state highway departments to install casing pipe by open cut methods during road reconstruction to significantly reduce bored highway crossing costs. These highways include State Highway 60 in Iowa (near Sheldon and Sibley), State Highway 19 in South Dakota (north of Vermillion) and

Interstate Highway 29 through Sioux Falls. Also, Highway 11 (Schindler Road) in Sioux Falls will be reconstructed that would affect construction of the service line to Minnehaha Community Water's eastern connection point.

8.2.3.2. County Highways

The pipelines will also parallel or cross numerous county roads in the counties served by this project. The county roads include heavily traveled paved roads, gravel surfaced roads (with varying levels of service and conditions), dirt roads and unimproved "travel at your own risk" or roads. Applications for permits for work crossing or within County road rights-of-way will be made to the various counties.

8.2.3.3. City, Town and Local Roads

The project will impact local roads and streets in the various towns and cities served by the project. This construction would be for service lines and main Lewis & Clark transmission pipelines. For example, the main transmission pipeline could cross or be located in a city street right-of-way. Major construction of this nature would probably require street pavement replacement.

8.2.4. Railroad Right-of-Way Crossing and Occupancy Permits

Permits for crossing existing railroad rights-of-way, if not abandoned, may be required. Typically, railroad crossings must be bored or jacked. Railroads are currently active throughout the project area. Some railroad rights-of-way do not have tracks. Some railroad rights-of-way shown on maps are not immediately evident and appear to have reverted to the underlying landowner – research will be required to determine current land ownership status.

Active railroad crossings will be made by boring or jacking methods. Typically, railroad companies require installation of steel casing pipe. Inactive railroads (no track) will be crossed by open-cut trenching – the railroad company may or may not require installation of steel casing. Railroad grades 50 years and older in South Dakota are considered eligible for listing in the National Register of Historic Places. Many of these consist only of the grade. As mitigation for crossing railroad grades, excavated areas need to be restored to the pre-existing condition. Crossings, construction and repairs will be performed in accordance with the requirements of the railroad company and requirements in each state. It will also be important to coordinate with the railroad companies to discuss and schedule construction activities.

Additionally, the transmission pipeline in Minnesota between Luverne and Worthington would be constructed in the Rock-Nobles Rail Authority right-of-way. The Rock-Nobles right-of-way is 100' wide. Agricultural activities have encroached upon the railroad right-of-way at some locations. There are places where the railroad cut (or fill) occupies almost all of the right-of-way. Pipeline construction can probably not be any closer than 15'to 20' to the closest rail.

It is the current intent to construct the Lewis & Clark pipeline in the Rock-Nobles Rail Authority right-of-way and acquire a permanent easement. Lewis & Clark will also have to obtain construction easements from private land owners for most of the alignment as well as permanent easement in locations where the pipeline can't physically fit in the railroad right-of-way.

Some railroads require occupancy fees (either annually or for a one-time fee). These fees are considered to be eligible for funding and are included in the project funding for land and easements.

8.2.5. Water Right Permits

Lewis & Clark was issued Future Water Use Permit No. 5832-3 with a priority date of July 8, 1994 to reserve 27,000 acre-feet of water annually from the Mulberry Point area. A copy of Permit No. 5832-3 is included in Appendix A-4. Lewis & Clark will apply for another Future Use Permit for wells located in the area north and west of the Mulberry Point area to allow appropriation of water from wells at Sites J1, U or W.

A more detailed discussion regarding water rights is included in Section 4.2.7.

8.2.6. Construction Plans Review

Throughout the project's construction phase, construction plans and other related documents will be developed for bidding and construction of the project facilities. Various agencies have the statutory responsibility to review and approve engineering plans for drinking water supply, treatment and distribution systems prior to construction.

8.2.6.1. Federal Review Authority

The U.S. Bureau of Reclamation is the lead Federal agency charged with oversight of Federal funding expenditures for the construction of the Lewis & Clark project. Reclamation is also responsible for project regulatory oversight and for ensuring compliance with environmental and

related laws. Reclamation's review authority is defined in the project's authorizing legislation and the Cooperative Agreement. This Final Engineering Report, the draft Environmental Assessment and Water Conservation Plan are subject to Reclamation's review. Reclamation will also be responsible for reviewing the construction contract documents prior to construction.

Reclamation, through cooperative agreement with Lewis & Clark, requires VE (Value Engineering) reviews be conducted on major project components. Reclamation's VE process is to get input from outside the design firm (outside groups include regulatory agencies) to provide input to forward to the designers to consider prior to finalizing the design. Typically, Reclamation does the VE review at the ±30% level of design. Reclamation also performed a VE review of a draft of this Final Engineering Report in February 2002.

8.2.6.2. State Review Authority

Project construction will take place in three states. Reviewing agencies and primary contacts in each state are as follows:

- South Dakota – South Dakota Department of Environment and Natural Resources (DENR)
- Minnesota – Minnesota Department of Health
- Iowa – Iowa Department of Natural Resources (DNR)

Construction plan reviews will be required by the state in which the work will be performed. The treatment plant will be an exception - even though the treatment plant is located in South Dakota, Minnesota and Iowa have requested the opportunity, as a courtesy, to see the water treatment plant plans since funds from those states will be a part of the funding package used to construct the plant. Review comments on the water treatment plant from the Minnesota Department of Health and Iowa DNR will be provided to the South Dakota DENR for consideration.

8.2.7. Other Construction Permits

Various other permits and authorizations will be required to regulate construction activities. Some of these permits will be obtained by Lewis & Clark; other construction contractor related permits will be the responsibility of the construction contractor to obtain. Regardless of the party obtaining the permit,

the construction contractor will be assigned the responsibility to comply with the terms of the required permits.

Permitting would be required for the following activities:

- Water discharged from construction activities including trench dewatering (NPDES - National Pollutant Discharge Elimination Systems, in South Dakota, these are called SWD's – Surface Water Discharge permits);
- Stormwater runoff from construction areas;
- Discharges of water from pipelines for hydrostatic testing, line flushing and pipeline disinfection;
- Temporary use of water for construction purposes;
- Floodplains/floodway permits for construction within designated floodplains/floodways;

8.2.8. Other Utilities

The project may cross rights-of-way and easements for other public and private utilities. Other utilities operated in the project area include:

- Telephone systems
- Fiber optic lines
- High voltage electrical transmission lines and substations
- Electrical distribution systems and transformers (overhead and buried)
- Municipal and rural subdivision water, sewer and drainage systems
- Gas/ petroleum product pipelines

Each utility will be contacted to determine requirements for permitting, licenses and design criteria for construction of Lewis & Clark facilities. Utility crossings will be identified during the design phase through contacts with the "One-Call" system in each state.

8.2.9. Compliance with Federal Environmental and Protective Requirements

The project is also responsible to comply with various Federal government regulations regarding environmental, wildlife and cultural resource protection, as applicable. These various Federal regulatory requirements are discussed in detail in the *Draft Environmental Assessment for the Lewis and Clark*

Rural Water System, South Dakota, Minnesota and Iowa prepared for this project by TRC Mariah Associates Inc. for Reclamation.

8.3. Land Acquisition, Leases and Easements

Acquisition of lands required for construction, operation and maintenance of a major water system is a significant undertaking. Due to the complexity and lead time required, agreements for acquisition of lands and easements required for the project should be negotiated and secured as soon as practical and as allowed in the authorizing legislation. Property purchased by Lewis & Clark will be appraised prior to purchase. Appraisal values will be a factor considered in negotiation of the purchase price. In addition to the purchase price for permanent and temporary easements, payments may be required for loss of production – the length of time and conditions regarding these payments are subject to policy to be established by Lewis & Clark. Other damages may be required for property included in the permanent and temporary easements.

The Lewis & Clark project will have to secure a significant number of easements for the construction and operation/maintenance of the pipeline systems. The project will also have to purchase parcels of land for construction some of the wells, the water treatment plant, reservoirs, pump station and service connection buildings, pipeline appurtenances and access roads.

Temporary construction and permanent operation and maintenance easements will be required for the pipelines. The pipelines will be constructed primarily on privately owned lands. Generally, the pipelines will not be located in road or highway rights-of-way due to conflicts with other utilities and possible disruptions due to potential future road construction.

A permanent easement will also be required to allow for maintenance of the pipeline. The permanent easement should be sufficiently wide to permit maintenance crews an adequate work area under adverse weather conditions. Typically, the permanent easement is centered over the pipeline. Table 8.3-1 provides a guideline for the acquisition of temporary and permanent easements for various size ranges of pipe.

Table 8.3-1
Preliminary Estimate of Required Temporary and
Permanent Pipeline Easement Widths

Pipe Size Range	Temporary Construction Easement Width (ft)	Permanent Easement Width (ft)	Total Easement Width (ft)
42" to 54"	90 to 120	70 to 80	160 to 200
16" to 36"	70 to 90	50 to 60	120 to 150
6" to 14"	30 to 60	30 to 40	60 to 100

The land on which the wells are to be located, including the land around each well, should be owned (or in the case of State Land, a long-term lease) by Lewis & Clark and will include land for the well and pump house, wellhead protection, access to the well, well collector piping and other utilities.

Project features will cross and occupy various tracts of private lands throughout the project area. Easement agreements will be negotiated with each landowner. The project will also cross state-owned lands and easements will need to be negotiated with the appropriate agency in each state having jurisdiction over the lands in question.

Easements will also be required from the US Fish & Wildlife Service for lands leased by the Service (or in easements) that are used for wetlands, grassland, and wildlife production and/or protection areas.

Additional discussion regarding land requirements for the wells, pipelines and water treatment plant are found in Sections 3.2.2, 3.3.12 and 3.4.8, respectively.

8.4. Permits to be Secured by Construction Contractor

Certain construction activities require permits. However, the nature of the construction activity will be determined by the contractor as to means, methods and techniques. Therefore, it may not be appropriate for Lewis & Clark to secure these permits. It is more appropriate for the construction contractor to be the applicant and holder of certain permits under his direct control with regard to legal liability.

The construction contract documents will be written to place the responsibility of securing these additional required permits on the construction contractor. The construction contractor will also be required to

comply with the requirements of the permits (including Owner supplied permits) and be liable for permit violations and any subsequent fines or penalties.

Construction contractor secured permits may include the following:

8.4.1. NPDES Permits

NPDES (National Pollutant Discharge Elimination Systems) permits, also called a "discharge permit", are required if discharges are made from a temporary sediment pond or other treatment works to a receiving water of the state. A discharge permit is also required if trench water or other dewatering activities discharge to a receiving water. Construction activities should be restricted to prohibit or significantly restrict such discharges in order to eliminate the need for such permits.

In lieu of discharging directly into a receiving water as a point discharge, a diffused discharge of wastewater or dewatering effluent should be made. Generally, this process is termed land treatment and this method is also regulated.

The contractor will have to discharge water used for hydrostatic pipeline testing and pipeline disinfection. Typically, discharges of testing water can be handled through a letter of permission to allow discharges. Chlorinated water from pipeline disinfection will be tested and dechlorinated as necessary to meet discharge permit requirements.

8.4.2. Storm Water Pollution Prevention Plans

The construction contractors should also responsible for handling stormwater runoff generated from a construction area. The contractor will be responsible to develop a Storm Water Pollution Prevention Plan (Federal Register Vol. 57, No. 175, Wednesday, September 9, 1992). The contractor is also responsible to submit a Notice of Intent to certify that a Storm Water Pollution Prevention Plan has been prepared for the site.

In some states (South Dakota, for example), the EPA has issued a general permit for construction activities. The EPA has established generic requirements for sediment and erosion control, storm water management and other controls. The Storm Water Pollution Prevention Plan will be implemented on the construction job site to bring the site into compliance with the general permit. Each construction site

covered by the general permit must develop a plan, tailored to site specific conditions, and designed with the goal of controlling the amount of pollutants in storm water discharges from the site.

8.4.3. Other Miscellaneous Construction Permits

The construction contractor will be responsible for other miscellaneous permits and requirements specific to the construction operation. Other miscellaneous permits could include requirements for the following:

- Sediment retention ponds
- Land application of construction waste water (not sanitary waste)
- Solid waste disposal for construction materials and demolition
- Burn permits
- Fugitive dust permits
- Temporary construction water agreements or permits
- Haul road permits
- Construction and building permits
- SPCC (spill prevention control and countermeasure plan)
- Land use agreements for lands to be used for construction contractor's purposes (for lands outside of project supplied easements and rights-of-way for contractor's convenience)
- Any other permits not otherwise specified that may be required pursuant to any local, state or Federal laws or regulations.