

ENVIRONMENTAL ASSESSMENT

for

**HAROLD D. THOMPSON REGIONAL
WATER RECLAMATION FACILITY**

OWNER:

**LOWER FOUNTAIN METROPOLITAN
SEWAGE DISPOSAL DISTRICT**

**GMS, Inc.
Consulting Engineers**

ENVIRONMENTAL ASSESSMENT
FOR
HAROLD D. THOMPSON REGIONAL WATER RECLAMATION FACILITY
JANUARY 2011
PROJECT NO. 20166.251

PREPARED FOR:
LOWER FOUNTAIN METROPOLITAN SEWAGE DISPOSAL DISTRICT
902 SOUTH SANTA FE AVENUE
FOUNTAIN, CO 80817

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ENVIRONMENTAL ASSESSMENT CHECKLIST

IDENTIFY ALTERNATIVE:

Y = Yes N = No PA = Possible Adverse

1. Physical Aspects - Topography, Geology and Soils

- Y N PA a. Are there physical conditions (e.g., steep slopes, shrink-swells soils, etc.) that might be adversely affected by or might affect construction of the WWTF facilities?
- Y N PA b. Are there similar limiting physical conditions in the planning area that might make development unsuitable?
- Y N PA c. Are there any unusual or unique geological features that might be affected?
- Y N PA d. Are there any hazardous areas (slides, faults, etc.) that might affect construction or development?

Discussion and References:

2. Climate

- Y N PA a. Are there any unusual or special meteorological constraints in the planning area that might result in an air quality problem?
- Y N PA b. Are there any unusual or special meteorological constraints in the planning area that might affect the feasibility of the proposed wastewater treatment alternative?

Discussion and References:

3. Population

- Y N PA a. Are the proposed growth rates excessive (exceeding State projections, greater than 6% per annum for the 20 year planning period)?
- Y N PA b. Will additional growth be induced or growth in new areas encouraged as a result of facilities construction?
- Y N PA c. Will the facilities serve areas which are largely undeveloped areas at present?

Discussion and References:

4. Housing, Industrial and Commercial Development and Utilities

- Y N PA a. Will existing homes or business be displaced as a result of construction of this property?

- Y ___ N x PA ___ b. Will new housing serviced by this facility affect existing facilities, transportation patterns, environmentally sensitive areas, or be in special hazard or danger zones?
- Y ___ N x PA ___ c. Will new housing create strains on other utilities and services - policies, power, water supply, schools, hospital care, etc.?

Discussion and References:

5. Economics and Social Profile

- Y x N ___ PA ___ a. Will certain landowners benefit substantially from the development of land due to interceptor routing or WWTP location and size?
- Y ___ N x PA ___ b. Will the facilities adversely affect land values?
- Y ___ N x PA ___ c. Are any poor or disadvantaged groups especially affected by this project?

Discussion and References:

6. Land Use

- Y ___ N x PA ___ a. Will projected growth defeat the purpose of local land use controls (if any)?
- Y ___ N x PA ___ b. Is the location of the WWTP or other facilities incompatible with local land use plans?
- Y ___ N x PA ___ c. Will inhabited areas be adversely impacted by the project site?
- Y ___ N ___ PA x d. Will new development have adverse effects on older existing land uses (agriculture, forest land, etc.)?
- Y ___ N x PA ___ e. Will this project contribute to changes in land use in association with recreation (skiing, parks, etc.), mining or other large industrial or energy developments? New development will occur on grazing and cultivated agriculture land.

Discussion and References:

7. Floodplain Development

- Y x N ___ PA ___ a. Does the planning area contain 100 year floodplains?
If yes -
- Y ___ N x PA ___ b. Will the project be constructed in a 100 year floodplain?
- Y ___ N x PA ___ c. Will the project serve direct or indirect development in a 100 year floodplain anywhere in the planning area?

Discussion and References:

8. Wetlands

- Y x N ___ PA ___ a. Does the planning area contain wetlands as defined by the U.S. Fish and Wildlife Service?
If yes -
- Y ___ N x PA ___ b. Will any major part of the treatment works be located on wetlands?
- Y ___ N x PA ___ c. Will the project serve growth and development which will directly or indirectly affect wetlands?

Discussion and References:

9. Wild and Scenic Rivers

- Y ___ N x PA ___ a. Does the planning area contain a designated or proposed wild and scenic river?
If yes -
- Y ___ N ___ PA ___ b. Will the project be constructed near the river?
- Y ___ N ___ PA ___ c. Will projected growth and development take place contiguous to or upstream from the river segment?
- Y ___ N ___ PA ___ d. Will the river segment be used for disposal of effluent?

Discussion and References:

10. Cultural Resources (Archeological/Historical)

- Y ___ N x PA ___ a. Are there any properties (historic, architectural, archeological) in the planning area which are listed on or eligible for listing on the National Register of Historic Places?
If yes -
- Y ___ N ___ PA ___ b. Will the project have direct or indirect adverse impacts on any listed or eligible property?

Discussion and References:

11. Flora and Fauna (including endangered species)

- Y ___ N x PA ___ a. Are there any designated threatened or endangered species or their habitat in the planning area?
- Y ___ N x PA ___ b. Will the project have direct or indirect adverse impacts on any such designated species?
- Y ___ N x PA ___ c. Will the project have direct or indirect adverse impacts on fish, wildlife or their habitat including migratory routes, wintering or calving areas?
- Y ___ N x PA ___ d. Does the planning area include a sensitive habitat area designed by a local, State or Federal wildlife agency?

Discussion and References:

12. Recreation and Open Space

- Y ___ N x PA ___ a. Will the project eliminate or modify recreational open space, parks or areas of recognized scenic or recreational value?
- Y ___ N x PA ___ b. Is it feasible to combine the project with parks, bicycle paths, hiking trails, waterway access and other recreational uses?

Discussion and References:

13. Agricultural Lands

- Y ___ N x PA ___ a. Does the planning area contain any environmentally significant agricultural lands (prime, unique, statewide importance, local importance, etc.) as defined in the EPA Policy to Protect

Environmentally Significant Agricultural Lands dated September 8, 1978?

Y ___ N x PA ___

- b. Will the project directly or indirectly encourage the irreversible conversion of Environmentally Significant Agricultural Lands to uses which result in the loss of these lands as an environmental or essential food production resource?

Discussion and References:

14. Air Quality

Y ___ N x PA ___

- a. Are there any direct air emissions from the project (e.g., odor controls, sludge incinerator) which do not meet Federal and State emission standards contained in the State Air Quality Implementation Plan (SIP)?

Y ___ N x PA ___

- b. Is the project service area located in an area without an approved or conditionally approved SIP?

Y x N ___ PA ___

- c. Is the increased capacity of the project greater than 1 mgd?

Y ___ N x PA ___

- d. Do the population projections used in the facilities plan exceed the State or areawide projections in the SIP by more than 5%?

Y x N ___ PA ___

- e. Does the project conform with the requirements of the SIP? (See EPA regulations under Section 316 of the Clean Air Act.)

Y ___ N x PA ___

- f. Is the project inconsistent with the SIP of an adjoining State that may be impacted by the Project?

Y ___ N x PA ___

- g. Does the project violate national ambient Air Quality Standards in an attainment or unclassified area?

Y ___ N x PA ___

- h. Will the facilities create an odor nuisance problem?

Discussion and References:

15. Water Quality and Quantity (Surface/Groundwater)

Y ___ N x PA ___

- a. Are present stream classifications in the receiving stream being challenged as too low to protect present or recent uses?

Y ___ N x PA ___

- b. Is there a substantial risk that the proposed discharge will not meet existing stream standards or will not be of sufficient quality to protect present or recent stream uses?

Y ___ N x PA ___

- c. Will construction of the project and development to be served by the project result in non-point water quality problems (sedimentation, urban stormwater, etc.)?

Y ___ N x PA ___

- d. Will water rights be adversely affected by the project?

Y ___ N x PA ___

- e. Will the project cause a significant amount of water to be transferred from one sub-basin to another (relative to the 7-day, 10 year flow of the diverted basin)?

Y ___ N x PA ___

- f. Will stream habitat be affected as a result of the change in flow or stream bank modification?

Y ___ N x PA ___

- g. Are stream conditions needed for deciding upon the required limitations inadequately specified in the 208 Plan? If so, have the

wasteload allocations calculations been performed and approved by the State and EPA?

Y N PA
Y N PA

- h. Is an Antidegradation Review required?
- i. Will the project adversely affect the quantity or quality of a groundwater resource?

Y N PA

- j. Does the project adversely affect an aquifer used as a potable drinking water supply?

Y N PA

- k. Are there additional cost effective water conservation measures that could be adopted by community to reduce sewage generation?

Discussion and References:

Antidegradation review accomplished with preliminary effluent limit determination issued by Colorado Water Quality Control Division January 23, 2009 and issued with corrections May 14, 2009.

16. Public Health

Y N PA
Y N PA
Y N PA

- a. Will there be adverse direct or indirect noise impacts from the project?
- b. Will there be a vector problem (e.g., mosquito) from the project?
- c. Will there be any unique public health problems as a result of the project (e.g., increased disease risks)?

Discussion and References:

17. Solid Waste (Sludge Management)

Y N PA
Y N PA
Y N PA

- a. Will sludge disposal occur in an area with inadequate sanitary landfills or on land unsuitable for land application?
- b. Are there special problems with the sludge that makes disposal difficult (hazardous, difficult to treat)?
- c. Is the technology selected for sludge disposal controversial?

Discussion and References:

18. Energy

Y N PA

- a. Are there additional cost effective measures to reduce energy consumption or increase energy recovery which could be included in this project?

Discussion and References:

19. Land Application

Y N PA
Y N PA
Y N PA
Y N PA

- a. Has a new or unproven technique been selected?
- b. Is there considerable public controversy about the project?
- c. Will the project require additional water rights or impact existing water Rights?
- d. Is the project multi-purpose?

Discussion and References:

20. Regionalization

- Y ___ N x PA ___ a. Are there jurisdictional disputes or controversy over the project?
- Y ___ N x PA ___ b. Is conformance with the 208 plan in question?
- Y ___ N x PA ___ c. Is the proliferation of small treatment plants and septic systems creating a significant health problem?
- Y x N ___ PA ___ d. Have inter-jurisdictional agreements been signed?

Discussion and References:

21. Public Participation

- Y ___ N x PA ___ a. Is there a substantial level of public controversy?
- Y x N ___ PA ___ b. Is there adequate evidence of public participation in the project?

Discussion and References:

22. Environmental Laws

- Y ___ N x PA ___ a. Does the project threaten to violate any State, Federal or local law or requirement imposed to protect the environment?

Discussion and References:

Reviewed: _____
Project Engineer Date: _____ Project Manager Date: _____
Certified: _____
Program Administrator Date: _____

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SECTION I

SUMMARY

A. PROJECT IDENTIFICATION

Applicant: Lower Fountain Metropolitan Sewage Disposal District (LFMSDD)
Address: 901 South Santa Fe Avenue, Fountain, CO 80817
Project Site Address: 14621 Lower Fountain Heights, Fountain, CO 80817
Project No. 030056W – Colorado Centre Metropolitan District
050024W – Fountain Sanitation District

B. CONTACT PERSON

Owner's Representative: Harold D. Thompson, President, Board of Directors
Mr. James E. Heckman, Manager
Lower Fountain Metropolitan Sewage Disposal District
901 South Santa Fe Avenue, Fountain, CO 80817
Telephone: 719-382-5303
Telefax: 719-382-3441

Consulting Engineer: Mr. Roger J. Sams, P.E.
GMS, Inc.
611 North Weber Street, Suite 300
Colorado Springs, CO 80903
Telephone: 719-475-2935
Telefax: 719-475-2938

C. ABSTRACT

The Lower Fountain Metropolitan Sewage Disposal District (LFMSDD) was created in 1986 to provide wastewater collection and treatment services to members and connecting entities. Through an intergovernmental agreement (IGA), the Fountain Sanitation District (FSD) and the Colorado Centre Metropolitan District (CCMD) who are members of the

LFMSDD, have decided to proceed with the construction of an activated sludge wastewater treatment facility. The new wastewater treatment facility will be constructed to address the following criteria:

- Average 30-day design hydraulic loading = 2.50 mgd
- Preliminary treatment with fine screening
- Activated sludge with biological nitrogen control
- On-site biosolids stabilization and dewatering
- Off-site biosolids disposal
- Disinfection with ultraviolet radiation
- Discharge of treated effluent to a drainageway tributary to Fountain Creek

The new wastewater treatment facility will be located on the south half of a 60-acre parcel of land owned by the LFMSDD. The site is located approximately three miles south of the existing City of Fountain city limits in unincorporated El Paso County. Access to the site is off Birdsall Road, approximately $\frac{3}{4}$ of a mile east of Old Pueblo Road. Figure I-1 is a vicinity map showing the location of the new WWTF site. This site was purchased by the LFMSDD in May 1989.

The existing FSD wastewater treatment facility (WWTF) presently provides wastewater treatment for the FSD service area and the CCMD service area. Projections of future loading to the existing FSD WWTF indicate that additional wastewater management capability will be required in the near future. The existing FSD WWTF site cannot support a new WWTF of a size sufficient for build-out of the FSD and CCMD service areas. Rather than construct numerous phased improvements to accommodate additional wastewater flows over the coming years, the Districts have elected to proceed with the regional WWTF which is in line with the creation of the LFMSDD in 1986, providing regional wastewater treatment in the Lower Fountain Creek basin as well as the Jimmy Camp Creek basin.

Phase 1 construction of the LFMSDD WWTF site will include the ability to provide the following:

- Phase 1 average day dry weather flow = 2.50 mgd
- Service area build-out average day dry weather flow = 6.00 mgd

- Phase 1 organic load capacity = 7,610 lbs/day (5-day carbonaceous biochemical oxygen demand); 9,744 lbs/day total 5-day biochemical oxygen demand
- Phase 1 addresses projected loading over a 15 to 20 year design period
- Existing FSD WWTF will remain in service to manage wastewater generated in that portion of the service area draining to the gravity collection system to the existing FSD WWTF site

The cost of the new LFMSDD WWTF is estimated to be \$22,800,000 as of December 2010. The cost of the project will be allocated between the two members of the LFMSDD WWTF, the FSD will be responsible for 75% of the cost and the CCMD will be responsible for 25% of the WWTF cost.

The FSD proposes to fund a portion of its share of the LFMSDD WWTF with existing reserve funds of the District, as well as new debt. Based on expected reserve funds available at the onset of construction, the FSD will provide approximately \$12,000,000 of reserve funds for this project. The remaining amount will be provided from loan proceeds from the Water Pollution Control Revolving Fund (WPCRF). In addition, the CCMD will also make application for funding through the WPCRF. In the event funds from the WPCRF are not available, the CCMD will take advantage of the water revenue bond program of the Colorado Water Resources and Power Development Authority (CWRPDA). It is the intent of the CCMD to fund its full share of the LFMSDD WWTF through this means.

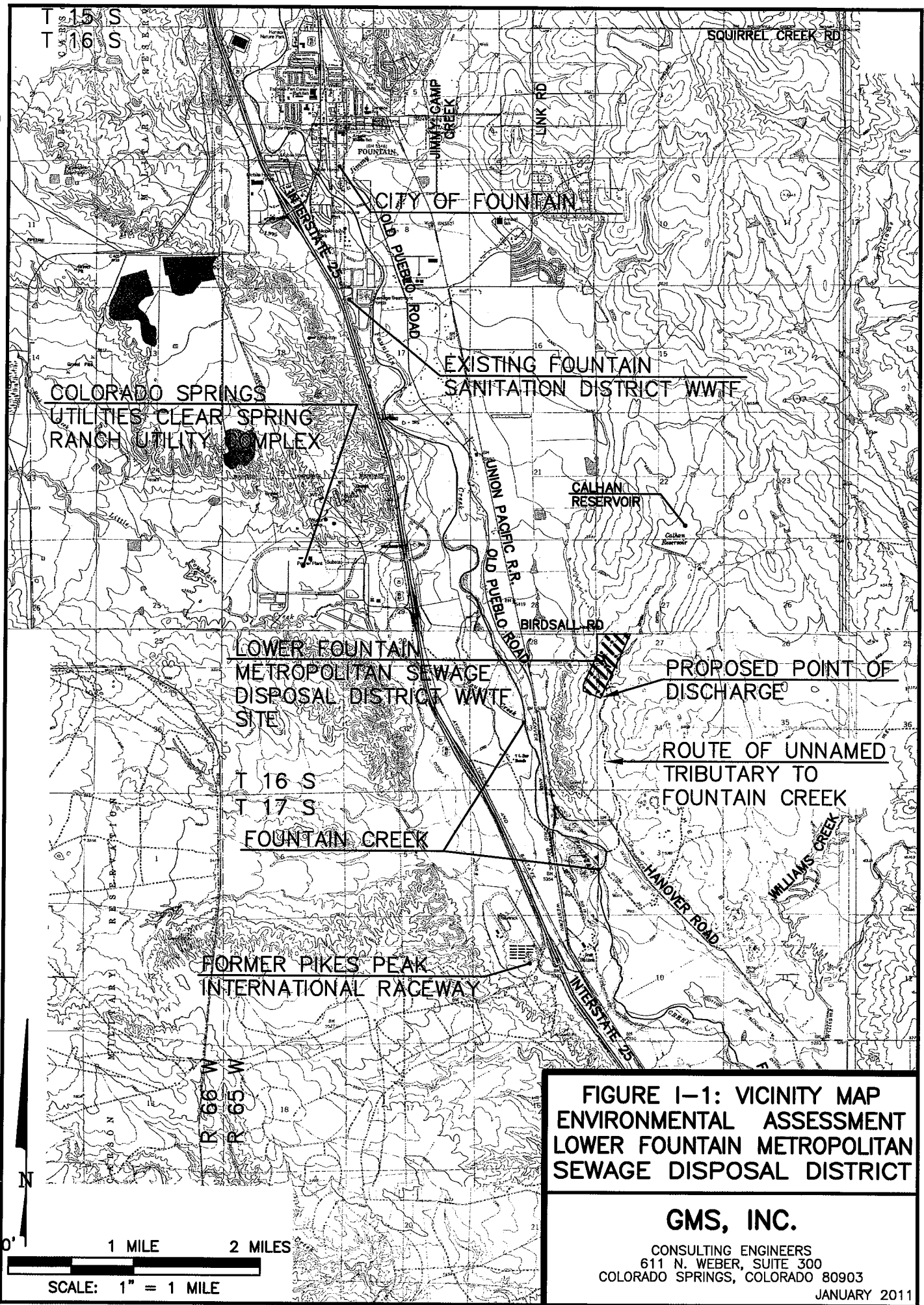
User charges assessed by the owners of the LFMSDD WWTF to support wastewater management operations may have to be adjusted to some extent. Depending upon the total amount of debt incurred, each district will evaluate new operational expenses and make adjustments to their rates as needed.

D. COMMENT PERIOD

In conformance with the requirements of the National Environmental Policy Act (NEPA) and the Colorado Environmental Review Process, a Finding of No Significant Impact (FNSI) was subject to a 30-day public review period. The FNSI was distributed to interested persons and agencies for their review and made available for public review at

the Colorado Department of Public Health and Environment. Any comments received will be given due consideration. Comments should be addressed to:

Scott Garncarz, NEPA Specialist/Project Manager
Water Quality Control Division
Colorado Department of Public Health and Environment
WQCD-OA-B2
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530

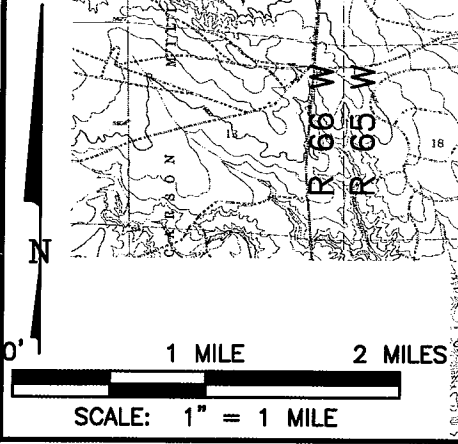


**FIGURE I-1: VICINITY MAP
 ENVIRONMENTAL ASSESSMENT
 LOWER FOUNTAIN METROPOLITAN
 SEWAGE DISPOSAL DISTRICT**

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JANUARY 2011



SECTION II

PURPOSE AND NEED FOR ACTION

The Fountain Sanitation District (FSD) provides wastewater management services for the District's service area, as well as for the Colorado Centre Metropolitan District (CCMD), through an intergovernmental agreement (IGA). The planning and future service areas of the Districts cover a large area. Figure II-1 is a highlighted map showing the FSD planning area and future service area and the CCMD service area. Projections for the loading on the existing FSD WWTF indicate that additional wastewater management capability will be required in the near future, now projected for late 2009-2010. The existing FSD WWTF site/property cannot support a WWTF of a size sufficient for build-out of the District's service area. Rather than provide improvements at this site on a phased basis with replacement at another site at some point in the future, the Districts have elected to proceed with the Lower Fountain Metropolitan Sewage Disposal District (LFMSDD) for implementation of a regional WWTF.

The LFMSDD was created in 1986 for purposes of implementing a regional WWTF serving the Jimmy Camp Creek basin. At that time, it was contemplated to serve a major portion of the City of Colorado Springs wastewater service area, as well as other wastewater utilities in the Jimmy Camp Creek and Lower Fountain Creek basins. Due to a delayed need for wastewater management services in the Jimmy Camp Creek basin and implementation of improvements and treatment plant expansion at the FSD WWTF site, the originally approved and designed WWTF at the LFMSDD property was not constructed.

A. COMPLIANCE

In as much as the existing FSD WWTF meets the discharge limits for the existing facility, projected hydraulic and organic loading on the plant will require multiple construction phases to upgrade the existing facility to handle projected loading. To remain in compliance, the new facility will be constructed to meet the preliminary effluent limits issued for the new facility. The initial phase of the wastewater treatment facility, as previously stated, has a maximum 30-day average throughput capacity of 2.50 mgd. The project will utilize an activated sludge system with biological nitrogen control, primarily addressing

ammonia. The new facility will meet the effluent limits to be issued by the Colorado Department of Public Health and Environment for this facility.

B. ADDITIONAL CAPACITY FOR POPULATION GROWTH

The FSD WWTF presently provides wastewater management services for the FSD and the CCMD. The existing FSD WWTF has a rated design capacity of 1.908 mgd. In the short term, this capacity is sufficient to manage flows from both Districts. Phase 1 construction of the new LFMSDD WWTF will handle 2.50 mgd. Based upon projected growth which translates to projected loading, it is anticipated the new facility will handle loading for a 15 to 20 year design period. The new LFMSDD site allows for the expansion of the new facility to eventually provide treatment services up to 6.00 mgd at service area build-out.

C. REPLACEMENT OF AGED INFRASTRUCTURE

As noted, the LFMSDD WWTF is a new facility. This facility will supplement the FSD WWTF previously discussed. A major expansion and upgrade was made to the FSD WWTF in 1997 (14 years ago). In 2007, some additional work was accomplished at the plant adding additional aerobic digesters. As loadings increase on the existing facility, continued upgrades will be required until such time the facility runs out of room to expand further. The new LFMSDD WWTF will provide immediate expansion relief required now with the ability to expand to handle service area build-out in decades to come. In summary, the new facility will supplement an existing facility that has been upgraded but yet is limited by site size as to its ability to expand to handle future loadings.