

STEAMBOAT LAKE SANITATION DISTRICT

REVISED SERVICE PLAN

August 1972

SECTION I - DESCRIPTION OF AREA

General

The Steamboat Lake Sanitation District is located in the northern portion of Routt County, Colorado, about 25 miles north of the town of Steamboat Springs. Map No. 1 shows the location of the District and Map No. 2 shows the boundaries and topography in detail.

The District comprises an area of approximately 15.9 square miles of which Steamboat Lake and the State owned recreational lands around it comprise about 4.2 square miles.

This Service Plan is based on a Study area consisting not only of the land presently within the District boundaries but also of all of the privately owned land lying within the drainage basin and capable of being developed for residential use. This was done with the view that such "outside" land may be developed and would be annexed to the District at a later date. The boundaries of the proposed district will coincide with the boundaries of an existing water district. It is anticipated that the two districts will be merged into one district at some later date.

Basic Economy

Since the construction of Steamboat Lake the land in the Study Area has become a major recreation area. Prior to that time the main economic basis were ranching and timber production.

With the current development program in the area the economic base has shifted principally to the recreation industry and will be based upon permanent and part time residents and tourists.

Existing Development

The community of Hahns Peak consists of about 40 buildings including a few seasonally operated commercial facilities. At the present time there are almost no permanent residents within the entire Study Area.

The Steamboat Lake Recreation Area is partially developed with more facilities under way and proposed.

The State Park Department currently operates one public campground on Pearl Lake in close proximity to the District boundary.

Proposed Development

The Master Plan of the Steamboat Lake Development is enclosed on Map No. 3. It is a recreational-residential community plan consisting of approximately 10,000 potential homesites.

Comparable densities have been projected for the other privately held parcels of land within the Study Area to provide the basis upon which the system is planned.

SECTION II - EXISTING SEWER FACILITIES

There are no community sewer facilities existing within the entire Study Area at the present time.

The State Recreation Area has toilet facilities which drain to holding tanks. These tanks are emptied as required and the effluent is taken by tank trucks for disposal elsewhere.

The existing houses in Hahns Peak have individual systems varying from pit privies to septic tanks. There have been some problems in this area because of water well and surface contamination.

SECTION III - SEWER COLLECTION SYSTEM

Main Trunk System

The main sewer trunk line utilizes a route which is either within the right-of-way of the existing County Road or across privately owned land. The required right-of-way across the privately held land will be acquired as the land is developed.

Map No. 4 shows the proposed route for the trunk line and the cost estimate is shown in Table 3.

The main trunk sewer line is designed to carry the flow generated within the entire Study Area when fully developed and occupied.

Laterals

The laterals are designed to handle 100% flow at peak period, when the area is fully developed. Each lateral will be located in such a position as to serve each lot in the development without undue costs or hardship to the lot owner.

SECTION IV - SEWAGE TREATMENT PLANT

General

Four alternates were studied regarding the number of treatment plants and their locations. Primary consideration was given to the preservation of the quality of both surface and sub-surface water supplies, The alternate selected is shown schematically as treatment plant study "A" on Map No. 4.

Location

From the Standpoint of operation, maintenance and costs it was evident that one treatment plant to serve the entire Study Area was the most desirable.

The decision to utilize only one plant was reinforced by the current desire of the County and State Health Department to avoid the proliferation of small treatment plants and to centralize the treatment.

Several plant locations were considered. The site was chosen as shown on Map No. 4 (Study "A") for several reasons. One main pumping station located on the County Road where it crosses Willow Creek will pick up all of the flow in the main drainage basin and a relatively short force main delivers it to the treatment plant.

The site chosen has already been designated for a sewage treatment plant, is of a sufficient size and topography and the treated effluent can be delivered by gravity directly to the Elk River in the vicinity of

Glen Eden. The flow in the Elk River is consistently of such a volume to provide an excellent vehicle into which the reclaimed water can be discharged.

This plant site has been approved by the State Water Pollution Control Commission for the first stage treatment plant.

Treatment

The sewage treatment plant will be designed and constructed to provide a high quality effluent which will exceed the discharge standards set by the Colorado State Health Department

The first stage plant will consist of an aeriated oxidation pond with a polishing pond which will produce an effluent equivalent to tertiary treatment. This plant has been approved by the Water Pollution Control Commission.

Primary, secondary and tertiary treatment will be provided in the second stage plant and in all subsequent stages.

Size and Staging

The treatment plant will be designed to serve a projected flow of 1,000,000 gallons per day. This design will then be modified to provide for staged construction in increments of a minimum of 100,000 gallons per day.

The first stage will be constructed to handle an average daily flow of 100,000 gallons per day.

When the average daily flow reaches 75% of the flow for which the plant is constructed the next stage will be started to be completed before the capacity is exceeded.

SECTION V - COSTS

General

The cost estimates are based upon present day costs and include engineering, legal and administrative fees.

It is anticipated that cost inflations on the later stages of construction will be compensated for by an increase in tap fees and use charges, if it becomes necessary.

Main Trunk Line

The main trunk line will be constructed in stages as shown on Map No. 4. The estimated construction costs are shown in Table 3.

Collection System

A cost per service connection was estimated using the detailed plans available on the first two phases of the Steamboat Lake Development and this cost was then applied as an average for the entire Study Area.

The projection for the collection system construction is shown in Table 4 with the costs.

Treatment Plant

The time and cost projections for the treatment plant construction are shown in Table 4.

SECTION VI - INCOME

General

The District has three primary sources of income: the basic use fee for the services provided, a tap fee for connecting the services to the collection system, and ad valorem taxes.

There is also money available from various State and Federal agencies in the form of grants for construction of treatment facilities and trunk lines.

Basic Use Fee

This fee is presently set at \$5.00 per month for each sewer connection. This fee will be assessed against every lot which has the sewer available to it whether or not a connection is made. Until a connection is made it will serve as an availability of service charge as provided by statute.

This fee will be increased as necessary to cover additional expense associated with the system including inflationary factors or unplanned system expansion.

The income projection for this source of revenue is shown in Table 5.

Tap Fee

Initially a tap fee of \$800.00 is anticipated. This fee will be due and payable when the service is available or a connection is made. The tap fee will be payable in five yearly installments of \$160.00 commencing when the service is available. When a connection is made the fee will be payable in full at that time.

This fee may also be increased by the District to compensate for increased costs.

The income projection for this source is also shown in Table 5. There was no consideration given for taps to any of the existing public or private facilities.

Taxes

The assessed valuation of the land and improvements within the District for the year 1971 was \$50,590.00. This is quite low but will increase very rapidly with the development of the privately owned property.

An ad valorem tax levy of 10 mills is considered to be acceptable for the District and this will provide a substantial source of income. The income from this source is shown in Table No. 5.

Other Sources

State and Federal grants or government backed loans are not being considered in the financial program for the District at this time.

Grants averaging up to 30% of the treatment plant costs may be available and if obtained will serve to reduce the construction costs.

SECTION VII - FINANCING

The total cost of the sanitary sewerage collection, trunk line and treatment system is estimated to be \$9,000,000.

The total system will be constructed in phases to meet the demand of the area as they occur. The service plan proposes that the entire collection, trunk line and treatment system will be financed by the District through bond issues. The proposed indebtedness for the District for all phases of development as shown in Table 5 is \$9,612,000. Table 5 also shows the projected income and repayment schedule for the bond redemption.

The proposed maximum interest rate for the bonds is nine percent (9%) with discounts not to exceed eight percent (8%).