Goal 11

PUBLIC FACILITIES AND SERVICES

The City of Cave Junction has continued to exhibit steady growth despite many economic obstacles which face all of the communities in the State of Oregon. People come to Cave Junction to live because of the tranquil nature of the community and the surrounding Illinois Valley, and also for the lower cost of living than one would find in a large urban area. Eventually, however, the City will need to provide further services to its public and then maintain those facilities. The following information demonstrates the City's plan for implementing future services and their maintenance in order to provide orderly expansion of the City.

For sewer and water planning, the following source documents have been used:

- Josephine County Comprehensive Areawide Water and Sewerage Plan, Stevens, Thompson & Runyan, 1972.

- Engineering Report of the Water Distribution System of Grants Pass, Oregon, CH2M-Hill, Inc., 1979.

- Reports to Mayor, City Council and City Planner, James Sullivan, Public Works Director, Cave Junction, 1977-79.

- Facilities Plan: Municipal Waste Treatment Works for City of Cave Junction, Tor Fatebo & Associates, 1976.

- Interoffice Memo - DEQ, August 8, 1983.

SEWER

The City of Cave Junction operates a 0.15 MGD sludge sewage treatment plant. The construction of this plant was completed in late July 1979. The former treatment system included a four acre lagoon. The new treatment plant consists of a Can-Tex circular package treatment plant followed by a polishing pond and chlorine contact chamber.

Effluent is irrigated on the adjacent Illinois Valley Golf Course during the spring and summer. The treated effluent is mixed with irrigation water from Kerby ditch and irrigated on the golf course. The golf course uses about 200,000 gallons per day during the dry season. This usuage is about twice the flow from the sewage treatment plant. Flow from the plant to the Illinois River can also be diverted to the holding pond on the golf course.

According to a draft memo from Dave Couch of the Department of Environmental Quality, the Cave Junction sludge plant does meet the effluent limitations of OAR 340-41-365. Furthermore, the memo states that the operation, monitoring and reporting have been in compliance with permit conditions. Also, the irrigation disposal requirements are based on sound irrigation practices.

The Cave Junction National Pollutant Discharge Elimination System Permit No. 2943-J which authorizes and conditions treatment of wastes and discharge of effluent to the Illinois River, was reissued to the City in September of 1983, and is valied until 1988.

It should be noted that the City has been experiencing a slightly higher annaul average daily flow which is reflective of storm run-off of ground water into the system. This problem has been discussed with DEQ, and will be carefully planned for in the future. The City is currently investigating the infiltration and exploring the options which will best deal with the problem.

Please see the Municipal Waste Treatment Works for the City of Cave Junction, by Tor Fatebo & Associates, 1976, for a complete description of the present system.

EXPANSION OF EXISTING PLANT

Currently, the City of Cave Junction has begun to take steps to provide the residents with a sewage treatment plant which will meet the needs of the growing community.

The Waste Water Treatment Works designed by Tor Flatebo and Associates, (Civil Engineer Number 7971, March 1, 1974) for the City of Cave Junction is constructed to be able to maintain a population of 2400. The current population of Cave Junction is 1106. As the City uses a formula of 2.8 persons per family to determine the number of persons per hook-up we find that the City has to provide 462 hook-ups to meet the maximum population served by the plant.

On March 29, 1984, the City submitted a Community Development Grant Application to the Executive Department of the Intergovernmental Relations Division for review.

The purpose for the request would include an analysis of the existing plant; a recommendation towards an operational modification to increase and improve present treatment capabilities; and finally, to determine what type of expansion to the existing plant the City should utilize in order to provide adequate waste treatment now and in the future.

It is hoped that the City will qualify for this small grant in order to hire a Consulting Engineer with prior experience in sewer system design and analysis. All additions to the existing plant will be co-ordinated with the State Department of Environmental Quality.

FUNDING OF EXPANSION TO THE PLANT

The City has planned to finance the proposed expansion by the plant in three ways:

1. The City has implemented Ordinances Number 185, and 231 which provide for water system connection charges. These funds are being held in reserve as future funding for expansion of the waste water treatment works. Currently, the fund holds in excess of $35,000.00. It is

expected that the remaining 462 hook-ups will bring an additional $395,800 towards the plant expansion. It is hoped that the capacity of the plant could be doubled with the addition of another tank so that the first would act as an aireator and the second a clarifier. However, these and all plans would be co-ordinated with the Department of Environmental Quality and other necessary state agencies.

2. The City Council has allocated $53,000.00 from the 1983 Budget towards this expansion, and sewer expansion.

3. Additional funding may be obtained through grants. This is being investigated by the City.

WATER SOURCE

The City has two wells that can pump a total of 977 gallons per minute (GPM) if operated continuously. In the peak period of summer, however, the wells may only be operated for five minutes and off for eight minutes, effectively pumping only 38% of elapsed time, producing an effective 296 GPM. The City also has a water permit for utilizing three cubic feet per second (CFS) out of the Illinois River, of which the City is at present utilizing only one (1) CFS. Cave Junction's total source at this time may be represented as shown below:

Table W-2

SOURCE	CFS	GPM	MGD*
Well #1 (summer)	.22	99.6	.14
Well #2 (summer)	.18	81.7	.12
Illinois River Water Right	3.0	1,346.4	1.94
TOTAL	3.40	1,527.7	2.20

*Million Gallons Per Day

This amount of water, 3.4 CFS or 2.2 MGD, represents the raw resource the City has to utilize for treatment and pumping. The current supply is adequate to provide water for 3400 people, the projected population for 2000.

However, the City's plan for obtaining a future water source(s) is twofold:

1) ground water; and

2) additional water rights from the Illinois River.

1) Ground Water: The Robert Almy report titled "Ground Water Resources of the Illinois Valley" provides data that indicates that sufficient ground water is available to the City to service the City's target population. (See Exhibit "I").

a.) Ground Water Quality: See attached map for information concerning ground water quality and availability. No highly mineralized wells exist within the proposed Urban Growth Boundary.

2) Surface Water: The City shall apply for additional water rights on the Illinois.

WATER TREATMENT

The present City Filtration Plant has four filter cells. Without an operator present, the plant can produce 560 GPM. With an operator, the four cells can filter 1400 GPM, almost a threefold increase. Filtration plant capacity can then be shown as below:

Table W-3

STATUS	MGD
No Operator*	.81
Operator 1 shift	1.21
Operator 2 shifts	1.61
Operator 3 shifts	2.02

*This option currently in effect.
MGD = Million Gallons per day.

WATER DELIVERY

Once treated, water is pumped both directly into the pipe network, and to reservoirs. Cave Junction has two reservoirs of 63,000 and 300,000 gallons storage capacity. The reservoirs perform three functions:

1. Equalizing Storage: Provides water when peak hour demands exceed plant capacity.

2. Fire Storage: Provides water to meet fire-flow demands. (Fire-flow demands for each major building in twon are set by the insurance services office.)

3. Reserve Storage: Provides water for the system when there is a power failure, a pump or treatement plant failure, a pump or treatment plant failure, or a transmission line failure.

Engineers differ as to what amounts of average annual demand and maximum day demand should be stored, as well as what constitutes adequate fire protection reserve.

Table W-4

	STR*	CH2M**
Eaualizing Storage	25% Max. Day	25% Max. Day
Fire Storage	National Board of Fire Underwriters avg. by 1,000 pop.	Max. Required for actual building by insurance services office
Reserve Storage	20% Max. Day	50% Max. Day

*STR: PG. 51 for equalizing and reserve storage, PG. 83 for fire storage.

**CH2M: PG. 29-30 reserve storage requirement specific to Grants Pass.

These criteria can result in significantly differenct storage requirements, as is summarized below for Cave Junction, using a population of 840 persons and a maximum day demand of 683 gallons per capita.

Table W-5

	STR	CH2M	ACTUAL CAVE JUNCTION
Equalizing Storage	.14	.14	-
Fire Storage	.24	1.08	-
Reserve Storage	.11	.29	-
TOTAL	.49 MG	1.51 MG	.363 MG

*MG = Million Gallons

Recommended equalizing storage requirements are the same. The STR reserve storage would supply the City with 4 1/2 hours of water at maximum day demand, while the CH2M recommended reserve storage would supply 12 hours of water. Both equalizing and reserve storage will increase with population.

Fire Storage is another matter, however. The STR recommendation is from a table showing average fire reserve per 1000 population. Storage requirements would increase, therefore, as population grew. The CH2M recommendation is that the maximum fire flow recommended for specific buildings within the City limits should be provided. As this maximum is likely to remain constant, and as only one fire at a time is envisioned, fire storage requirements would not increase with population. The insurance service office recommended fire-flows for buildings in Cave Junction is shown below.

Table W-6

	GALLONS PER MINUTE	HOURS FLOW REQUIRED	TOTAL GALLONS REQUIRED
Motel at Caves Hwy. & Redwood Hwy.	4500	4	1,080,000
Lumber Yard at Lister & Redwood	4500	4	1,080,000
School-River St. & Tracey	3500	3	630,000
School-East Old Stage	3000	3	540,000
Commercial Bldg. at Caves & Old Stage	2000	2	240,000
Multiple Unit Residential	1500-2000	2	180,000-240,000
Single Family Residential 10' - 30' apart	1000		120,000

The existing reservoirs, if full, could provide 3000 GPM for two hours. The pump at the treatment plant (assume 1400 GPM) and the two wells (assume the summer capacity of 181 APM) could boost this to 3741 GPM for two hours, and provide 741 GPM thereafter, assuming not use elsewhere in the City.

FIRE PROTECTION

Fire protection is provided by the Illinois Valley Rural Fire Protection District which has a fire station in Cave Junction. Cave Junction currently has a fire protection rating of seven (7) compared to a rating of 9 or 10 for the urbanizing area. This rating is established by insurance underwriters on a scale from one to ten, with one being the highest rating of Class 9.

Cave Junction, with its compact size compared to rural areas and with a water system, can be provided a much higher degree of fire protection than scattered rural development.

SOLID WASTE

Trash and garbage collection service is provided by a private company under a franchise agreement. A landfill is located in Kerby, just a few miles to the North. The major responsibility for solid waste planning is with Josephine County, which has adopted a solid waste management plan.

The adopted solid waste management plan contains two alternatives for service through 1994. Alternative "A" would continue operation of the Kerby site to service the Cave Junction District. Alternative "B" would convert the Kerby site to a demolition disposal site and transfer station for transfer to a regional facility.

POLICE PROTECTION

The City has a ratio of one police officer for every 200 person within the City limits. Josephine County has a "branch" Sheriff's Office located in Cave Junction. Josephine County has a ratio of one officer for every 1400 persons outside the Illinois Valley.

PLANNING, ZONING AND SUBDIVISION

Planning, zoning and subdivision control are provided by the City Council, Planning Commission, Planning Secretary, and Public Works Supervisor. Building permit review and inspections are provided by the county.

HEALTH AND EMERGENCY SERVICES

Cave Junction has a private medical center and five physicians. Also, a private ambulance service is located in the City. Health services are provided through the Josephine County Health Department, located at the County's Annex Building in Cave Junction.

SCHOOLS

An elementary school, a middle school, and a high school are located in Cave Junction. These are operated by a separate district and serve the Illinois Valley.

SCHOOL CAPACITY

	Current	Capacity	Site
Evergreen Elementary School	498	550	Adequate for Expansion
Lorna Byrne Middle School	362	300	Adequate for Expansion
Illinois Valley High School	417	600	Adequate for Expansion

The office of the Superintendent of County Schools provided the above information on current enrollment and capacity. At present only the Middle School is above capacity and an addition is planned. Each of the three school sites has sufficient land to allow for future expansion and no new school sites will be needed.

In addition to the public schools are the following private Church Schools:

Assembly of God School
Community Bible School
Immanuel United Methodist School
Seventh Day Adventist School

GOVERNMENT, CIVIC, SOCIAL ORGANIZATIONS, AND CHURCHES

The following is a partial listing of service providers located in Cave Junction:

Action Ambulance
Alcoholics Anonymous
Assembly of God
Bethesda Christian Community on World Outreach Ministries
Building Safety Department
Cave Junction Police Department
Children's Services Division
Community Bible Church and School
Community Bible Church
County Clerk - Voter Registration
Epsilon PI Chapter of Beta Sigma Phi
First Baptist
Food Stamps
Friends of the Illinois Valley Library
General Answering Service
HEW - Social Security
Illinois Valley Branch Library
Illinois Valley Chamber of Commerce
Illinois Valley Counciling Center
Illinois Valley Fine Artists, Inc.
Illinois Valley Garden Club
Illinois Valley Grange #370
Illinois Valley Human, Resources Council
Illinois Valley Lion's Club
Illinois Valley Rural Fire Protection
Illinois Valley Volunteer Fire Department
Immanuel United Methodist Church and School
Jehovahs' Witness
Josephine County Adult Probation Department
Josephine County Animal Control
Josephine County Board of County Commissioners
Josephine County Health Department
Josephine County Health Department - Environmental Services
Josephine County Health Department - WIC
Josephine County Planning Commission
Josephine County Sheriff's Substation
Kiwanis' Club of Illinois Valley

Latter Day Saints
Motor Vehicles Division
Retired Senior Volunteer Program (RSVP)
Senior Programs - Senior Aid
St. Matthias Episcopal
St. Patrick's Catholic Church
Seventh Day Adventist and School
Signs of Victory
State of Oregon - Department of Justice Support Enforcement Division
State of Oregon Unemployment
TOPS #141 (Weight Loss)
U.S. Post Office

ENERGY AND COMMUNICATIONS

Electric service is provided by Pacific Power and Light Company. Telephone service is provided by Redwoods Telephone Company. A cable television service is available.

STORM DRAINAGE

The City has a system of storm sewers and surface drainage ways which are adequate to meet certain needs. The downtown area along the Redwood Highway has storm sewers; this system is being steadily expanded as existing streets are improved or new streets are built. Two channelized surface drainage ways run through the planning area; these are indicated on the accompanying map.

CONCLUSIONS

1. In general, provision of water service is most critical in determining Cave Junction's future growth. Capacity either exists or can easily be expanded to accommodate a population of 5000 people.

2. The provision of waste water treatment plant service is also most important to the City's future expansion. Ordinances requiring hook-up fees are in effect to raise the necessary capital for expansion of the existing plant. The City has applied for a grant to study the engineering of an addition to the plant. Estimated cost to double plant is $500,000.00.

3. Solid waste collection and disposal are provided by the private sector according to the Josephine County Solid Waste Management Plan.

4. Police and Fire Services are adequate and can be expanded to meet additional population needs.

5. The City provides planning, zoning and subdivision control.

6. Health and emergency services are provided by the private sector and by Josephine County.

7. Elementary, Middle, and High Schools, operated by the School District are located in Cave Junction.

8. Electrict and communications services are provided by the private sector.

POLICIES

1. Dense Levels of development shall require intensive levels of service. Densities of greater than one dwelling unit per acre shall constitute a dense level of development within the Urban Growth Boundary.

2. Josephine County and the City of Cave Junction shall encourage the orderly and economic provision of public facilities and services within the Urban Growth Boundary.

A. The division of lands and development of property within the Urban Growth Boundary shall be in accordance with the phased provision of urban services, as adopted by the City and County.

B. Neither the City nor the County shall create any special districts for the provision of utilities, public facilities or services to the City of Cave Junction urbanization area unless such district:

1. Fall entirely within the Urban Growth Boundary.

2. Have been approved by both parties.

3. Are to be managed by the City Council as general purpose unit of the City or by the County Board of Commissioners as a County Service District.

4. Are consistent with the phased provision of urban services as adopted by both parties.

C. Overlapping and competing layer of political control of the provision of services shall be discouraged.

3. Those who benefit from the extension of urban services shall be those who pay for the cost of service extension. Citizens in the developed areas with a full range of services already provided should pay little if any of the costs of extending urban services. Various techiques should be utilized to mitigate the economic impact of service extension to those residents in developing areas who already provide their own services and to mitigate the economic impact of service extension to those persons on fixed and/or low incomes.

4. In programming capital improvements, the City will give consideration first to those areas most heavily committed to urban development before extension to less committed areas. The extension of services with similar physical and/or programatic requirements should be coordinated where economies will result.

5. Services shall be cost effective. The creation or extension of services should be based upon the most cost effective means of achieving the service. The private sector has a role to play in the provision of services and should be utilized where possible.

A. The implementation of ordinances to provide for water connection fees will provide a portion of the funding needed to expand service facilities.

B. The City shall investigate and apply for funding to assist in the development and completion of community service facilities projects.

6) Services shall be resource effective. Services shall not be extended past the carrying capacity of the resource base of that service, and shall utilize the resource in the most effective way practicable.

7) The type, locations and phasing of public facilities and utilities shall be used by the City and County in a coordinated fashion as factors to direct urban expansion, and to implement adopted community land use policies.

A. The City has applied for a Community Development Grant in order to determine the proper expansion and phasing of its sanitary sewage treatment plant in order to provide more effective service at the present time, and to properly plan for the future.

8) Dense levels of development at less than one acre per unit shall require a public sanitary sewage system. The City may determine in some areas that provision of sewers to an area is uneconomic and allow development on temporary sussurface systems where DEQ requirements are met.

9) Lots platted prior to the adoption of this plan which doe not have public sewers available may develop a subsurface system (subject to DEQ requirements) for use until public sewers are available.

10) Fees for connection to a sewer paid for by the developer of a neighboring property shall be paid to that developer, except for reasonable inspection or administrative costs of the City.

11) Where underground water supplies are limited, the City discourages approval of land division by the County of parcels less than five acres.

12) The City will develop in coordination with the County more detailed refinement plans for the provision of services to specific areas within the Urban Growth Boundary.

RECOMMENDATIONS:

1. The City should develop a plan and funding source for the provision of greater water storage capacity.

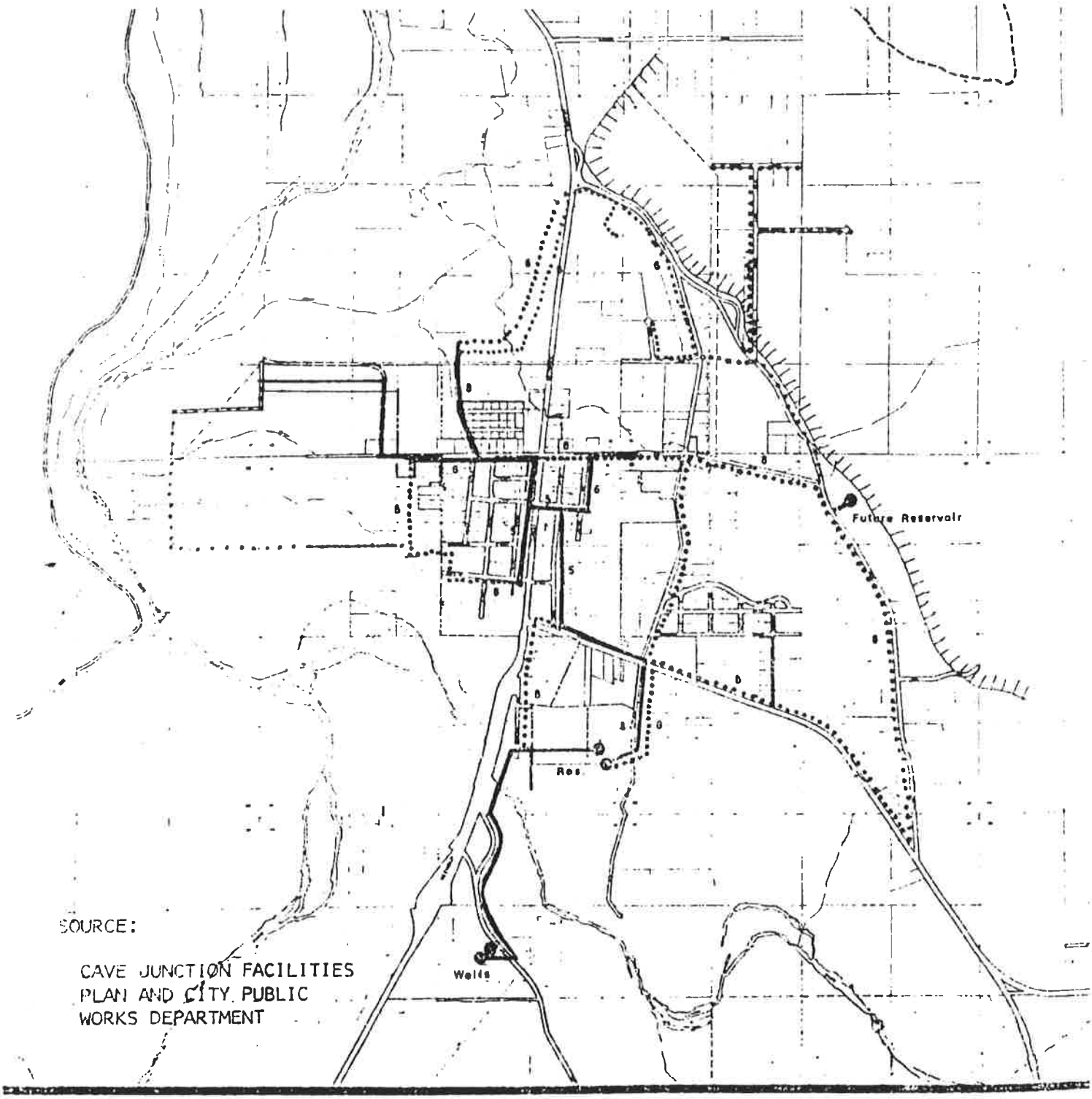
2. The City should drill further test wells to determine the capacity of the underground aquifer in various locations in the City.

3. The City should explore with owners of land near the sewage treatment plant, the feasibility of using treated effluent for irrigation of crops.

4. The City should study the feasibility of improving storm drainage and reducing infiltration into underground sewage lines.

5. The City should monitor land divisions by the County within its Urban Growth Boundary to prevent possible forces annexations due to failing septic systems or drawdown of wells serving rural residences.

6. The City should apply for an additional allocation of water from the Illinois River in the amount of 2-4 C.F.S.



SOURCE:

CAVE JUNCTION FACILITIES PLAN AND CITY PUBLIC WORKS DEPARTMENT

LEGEND

——— EXISTING

····· FUTURE

POOR GROUND WATER PRODUCTION::

WATER SUPPLY

:: 0-5 GALLONS PER MINUTE
PAQUIN WELL DRILLING CO.

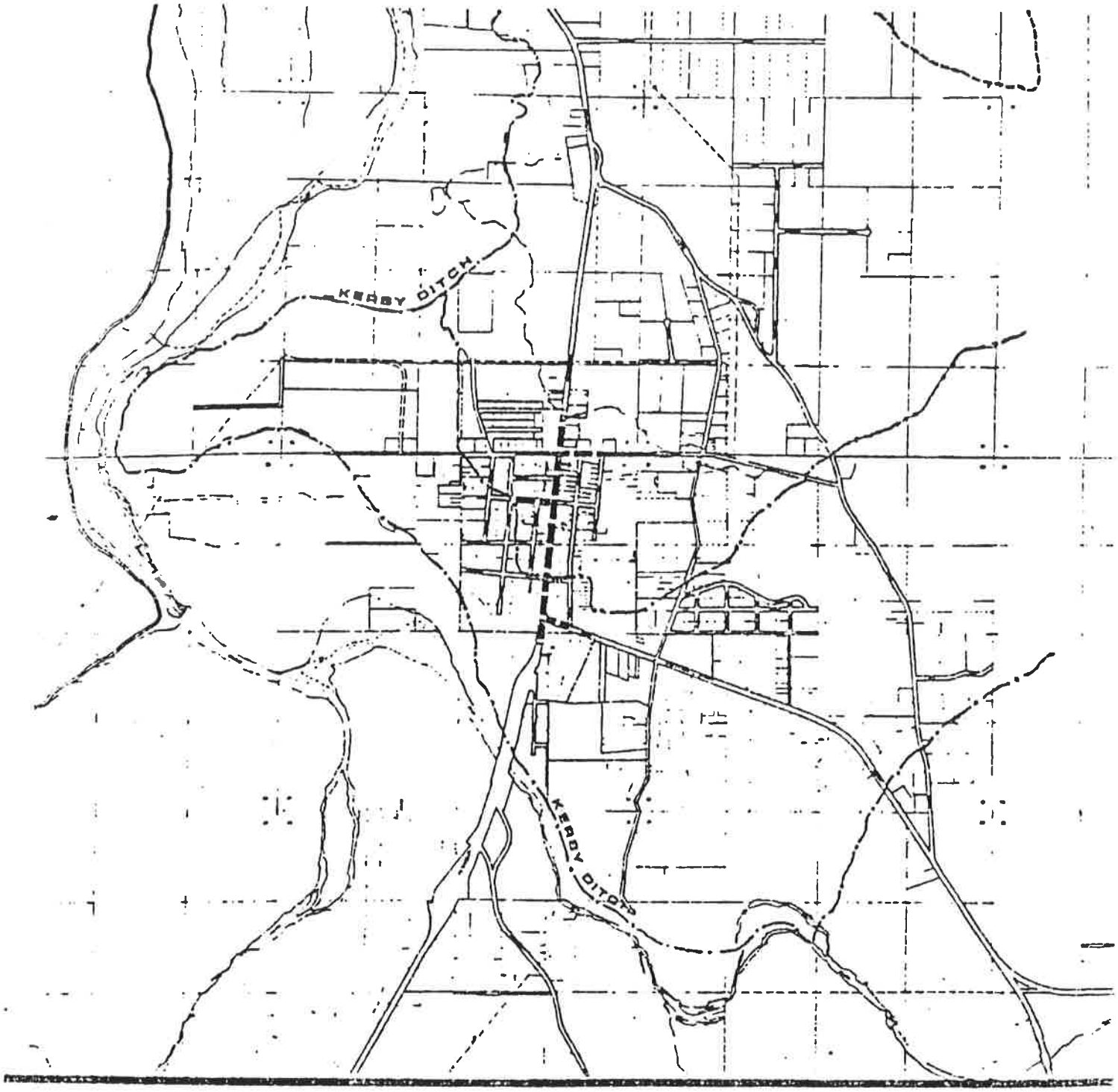
NORTH

0' 500' 1000' 1500'

THE CITY OF CAVE JUNCTION COMPREHENSIVE PLAN

DANIELSON ARCHITECTS

ONE EAST BROADWAY
MALL WALK
EUGENE, OREGON
97401 484-5757



LEGEND

STORM DRAINAGE

STORM SEWERS

SURFACE DRAINAGE WAYS

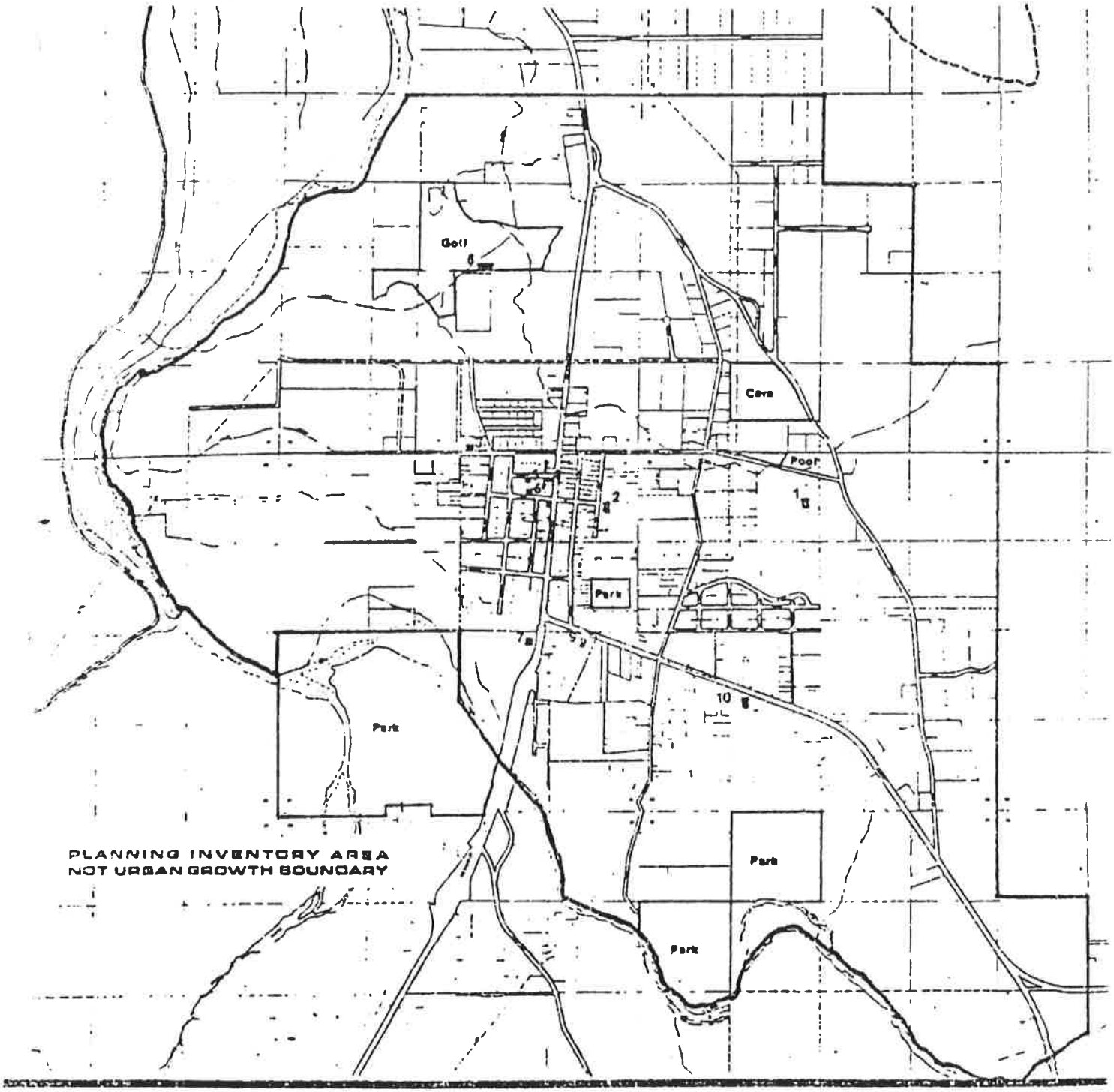
NORTH

0' 500' 1000' 1500'

THE CITY OF CAVE JUNCTION COMPREHENSIVE PLAN

DANIELSON ARCHITECTS

ONE EAST BROADWAY
MALL WALK
EUGENE, OREGON
97401 484-9757



LEGEND

COMMUNITY FACILITIES

1. ILLINOIS VALLEY H.S.
2. LORNA BYRNE MIDDLE SCHOOL
3. EVERGREEN ELEM. SCHOOL
4. POST OFFICE
5. LIBRARY
6. CITY HALL
7. RANGER STATION
8. RADIO STATION
9. CHAMBER OF COMMERCE
10. FIRE STATION

NORTH

0' 500' 1000' 1500'

THE CITY OF
CAVE JUNCTION
COMPREHENSIVE PLAN

DANIELSON
ARCHITECTS

ONE EAST BROADWAY
MALL WALK
EUGENE, OREGON
97401 484-3757

STATE OF OREGON — INTEROFFICE MEMO

DEQ Medford — DEPT

776-6010 — TELEPHONE

TO: Water Quality via Gary Grimes

DATE: 8/08/83

FROM: Dave Couch

SUBJECT: S - Josephine County
Cave Junction STP
Permit Evaluation Report
File No. 15243
NPDES Permit No. 2943-J

Facility Description

The City of Cave Junction operates a 0.15 MGD activated sludge sewage treatment plant. The construction of this plant was completed in late July 1979. The former treatment system included a four acre lagoon. The new treatment plant consists of a Can-Tex circular package treatment plant followed by a polishing pond and chlorine contact chamber.

Effluent is irrigated on the adjacent Illinois Valley Golf Course during the spring and summer. The treated effluent is mixed with irrigation water from Kerby ditch and irrigated on the golf course. The golf course uses about 200,000 gallons per day during the dry season. This usage is about twice the flow from the sewage treatment plant. Flow from the Illinois River can also be diverted to the holding pond on the golf course.

Evaluation of Facility

The 0.15 MGD activated sludge plant can meet the effluent limitations of OAR 340-41-365. Treatment efficiency for BOD average 93 to 99% and 89 to 98% for SS. Operation, monitoring and reporting have been in compliance with permit conditions.

Action Necessary

The City of Cave Junction has National Pollutant Discharge Elimination System (NPDES) Permit No. 2943-J which authorizes and conditions treatment of wastes and discharge of effluent to the Illinois River. This permit expires December 31, 1983. Application OR-202833-9 was submitted on July 6, 1983 for renewal of the permit.

Basis for Permit Limits and Conditions

1. The influent flow limitations are based on the design capacity of the plant.
2. Plant effluent discharge limits are based on OAR 340-41-365, Rogue Basin.
3. Irrigation disposal requirements are based on sound irrigation practices.

Recommendations

1. The proposed permit renewal should be reviewed and issued.
2. The permit renewal should expire on December 31, 1988.

DHC:fs
encl. (1) Draft Permit

Department of Environmental Quality

522 S.W. FIFTH AVENUE, BOX 1760, PORTLAND, OREGON 97207 PHONE (503) 229-5696

AUG 12 1983

CITY OF CAVE JUNCTION
Attention: James R. Sullivan, Public Works
P.O. Box "F"
Cave Junction, OR 97523

Final Date for Submission
of Written Comments: AUG 26 1983

Re: Waste Disposal Permit
File No. 15243

Gentlemen:

Your application for a National Pollutant Discharge Elimination System (NPDES) permit has been reviewed by the Department and a proposed NPDES permit has been drafted. You are invited to review the attached copy and submit any comments you may have in writing prior to the date indicated above.

After that date, all comments received will be evaluated by the Department of Environmental Quality and final action on your application will be taken in accordance with the procedures set forth in Oregon Administrative Rules, Chapter 340, Section 14-025. You will be advised of the action taken as soon as possible after the final date for submission of written comments.

If you have any questions, please contact this office.

Sincerely,

Charles K. Ashbaker, Supervisor
Source Control Section
Water Quality Division

CKA:mjb
Enclosure

cc: Southwest Region, DEQ

State of Oregon
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
AUG 15 1983
SOUTHWEST REGION OFFICE

Exhibit "Q"

PRELIMINARY DRAFT

Permit Number:
Expiration Date: 8/31/88
File Number: 15243

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

WASTE DISCHARGE PERMIT
Department of Environmental Quality
522 Southwest Fifth Avenue, Portland, OR
Mailing Address: Box 1760, Portland, OR 97207
Telephone: (503) 229-5696

Issued pursuant to ORS 468.740 and The Federal Clean Water Act

ISSUED TO:

City of Cave Junction
222 W. Lister St.
Cave Junction, OR 97523

SOURCES COVERED BY THIS PERMIT:

Type of Waste	Outfall Number	Outfall Location
Domestic Sewage	001	R.M. 54.6

PLANT TYPE AND LOCATION:

0.15 MGD Activated Sludge
W. Sawyer Ave.,
1/4 Mile North of City
Limits
Cave Junction STP

RECEIVING SYSTEM INFORMATION:

Major Basin: Rogue
Minor Basin: Illinois
Receiving Stream: Illinois
County: Josephine
Applicable Standards: OAR 340-41-365

Issued in response to Application No. OR-202833-9 received 7/6/83.

William H. Young, Director — Date

PERMITTED ACTIVITIES

Until this permit expires or is modified or revoked, the permittee is authorized to construct, install, modify, or operate a waste water collection, treatment, control and disposal system and discharge to public waters adequately treated waste waters only from the authorized discharge point or points established in Schedule A and only in conformance with all the requirements, limitations, and conditions set forth in the attached schedules as follows:

Each other direct and indirect discharge to public waters is prohibited.

This permit does not relieve the permittee from responsibility for compliance with any other applicable federal, state, or local law, rule, standard, ordinance, order, judgment, or decree.

SCHEDULE A

1. Waste Discharge Limitations not to be Exceeded After Permit Issuance.

Outfall Number 001.

Parameter	Average Effluent Concentrations Monthly	Weekly	Monthly Average lb/day	Weekly Average lb/day	Daily Maximum lbs
May 1 - October 31: No discharge to public waters allowed.					
November 1 - April 30:					
BOD	30 mg/l	45 mg/l	37.5	56.3	75
TSS	30 mg/l	45 mg/l	37.5	56.3	75
FC per 100 ml	200	400			

Other Parameters (year-round)	Limitations
pH	Shall be within the range 6.0-9.0
Average dry weather flow to the treatment facility	0.15 MGD

2. Notwithstanding the effluent limitations established by this permit, no wastes shall be discharged and no activities shall be conducted which will violate Water Quality Standards as adopted in OAR 340-41-365 except in the following defined mixing zone:

The allowable mixing zone shall not exceed that segment of the Illinois River from 10 feet upstream to 100 feet downstream of the point of discharge.

3. Between May 1 and October 31 of each year, all waste waters shall be distributed on land for dissipation by evapotranspiration and controlled seepage by following sound irrigation practices so as to prevent:

a. Prolonged ponding of waste on the ground surface;
b. Surface runoff or subsurface drainage through drainage tile;
c. The creation of odors, fly and mosquito breeding and other nuisance conditions; and
d. The overloading of land with nutrients or organics.

4. The permittee shall, during all times of disposal, provide personnel whose primary responsibilities are to assure the continuous performance of the disposal system within the limitations of this permit.

5. Prior to land disposal of the waste water it shall receive at least the following treatment:

a. The effluent shall be properly disinfected so that the fecal coliform count does not exceed 10/100 ml.

b. A chlorine residual of at least 2.0 mg/l shall be maintained at all times during irrigation.

6. Unless approved otherwise in writing by the Department, a deep-rooted, permanent grass cover shall be maintained on the land disposal area at all times and periodically cut to maintain it in the growth cycle to insure maximum infiltration and evapotranspiration rate during the disposal season.

SCHEDULE B

Minimum Monitoring and Reporting Requirements
(unless otherwise approved in writing by the Department)

Outfall Number 001 (sewage treatment plant outfall)

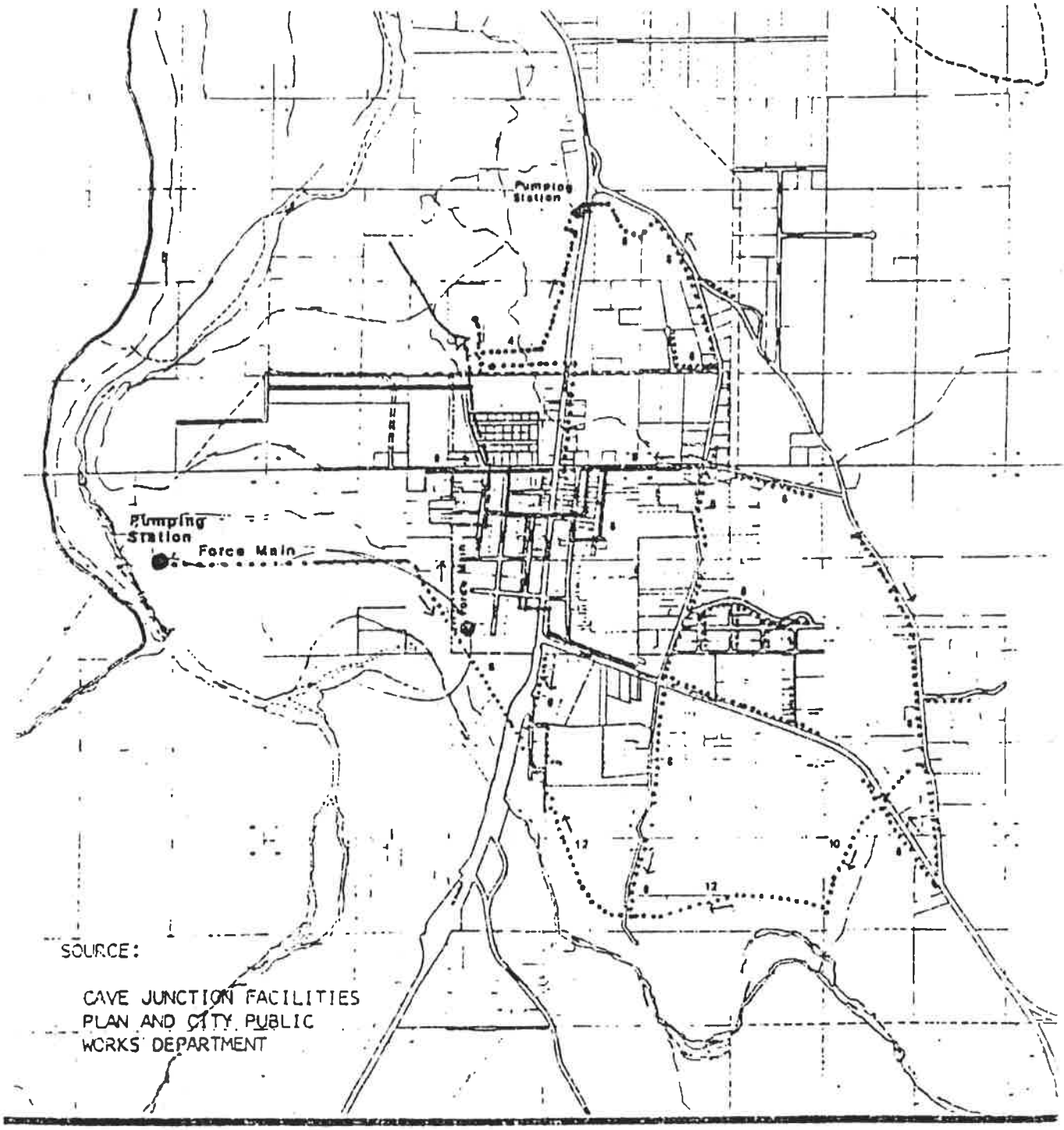
Item or Parameter	Minimum Frequency	Type of Sample
Total Flow (MGD)	Daily	Measurement
Quantity Chlorine Used	Daily	Weight
Effluent Chlorine Residual	Daily	Grab
BOD-5 (influent)	1/Week	Composite
BOD-5 (effluent)	1/Week	Composite
TSS (influent)	1/Week	Composite
TSS (effluent)	1/Week	Composite
pH (influent and effluent)	2/Week	Grab
Fecal Coliform (effluent)	Monthly	Grab

Monitoring reports shall include a record of the location and method of disposal of all sludge and a record of all applicable equipment breakdowns and bypassing.

Reporting Procedures

Monitoring results shall be reported on approved forms. The reporting period is the calendar month. Reports must be submitted to the Department by the 15th day of the following month.

P15243 (1)



LEGEND

EXISTING

FUTURE

REPLACE

SANITARY SEWERS

NORTH

0 500' 1000' 1500'

THE CITY OF
CAVE JUNCTION
COMPREHENSIVE PLAN

DANIEL
ARCHITE

ONE EAST 3RD
MALL
EUGENE, O
97401