SECTION 4

OPERATIONS AND MAINTENANCE

MAPPING

RESOURCES AND BUDGET

The Sea Ranch Sanitation Zone (Sea Ranch SZ) consists of two wastewater collection and treatment systems located in Central and North Sea Ranch. The Central and North treatment facilities both provide treatment to secondary wastewater treatment standards. Their collection and disposal systems operate independently and are isolated from each other. The Central and North treatment facilities are designed to treat average daily dry weather flows of up to 27,000 and 160,000 gallons per day, respectively. Treated wastewater from the Central treatment facility is disposed of through irrigation on land that is adjacent to the treatment facility. The North treatment facility treated wastewater is pumped to the Gualala Community Services District's (GCSD) wastewater treatment facility for additional treatment to tertiary standards. The combined effluent of North and GCSD's treatment facility is disposed of through irrigation on the Sea Ranch Golf Links. The Sea Ranch Water Company is under contract to operate and maintain the Sea Ranch SZ facilities for the SCWA. The Agency and the Sea Ranch Association, owner of the Sea Ranch Water Company, continue to investigate options for the continued operation of the Sea Ranch SZ. Options being considered include executing an agreement between the Agency and the Sea Ranch Association for the continued operation of the sewer facilities and the transfer of all assets, liabilities, and management responsibilities to the Association. An EIR is being prepared for a project to address disposal issues at the Central Treatment Plant. Options being considered include increased storage and disposal areas at the Central Treatment Plant and connection to the North Treatment Plant (this option includes increased storage at the North Plant). Projected capital costs for FY 08-09 through FY 12-13 is approximately $5.6 million. Projects include the project described above and repair/replacement of the collection system. The projects in this section of the plan meet the objectives in Section 3.0 (Wastewater and Recycled Water Services) in the Agency's Strategic Plan.

Sonoma County Water Agency - Capital Projects Plan List/Project Cost
2011 through 2016
Sea Ranch Sanitation Zone

Major Repair and Replacement:

Project	Project Description	Total Project Cost	F.Y. 2011-12	F.Y. 2012-13	F.Y. 2013-14	F.Y. 2014-15	F.Y. 2015-16
Capital Replacements		$ 90,000		$ 10,000	$ 20,000	$ 30,000	$ 30,000
		$ -					
		$ -					
		$ -					
		$ -					
		$ -					
		$ -					
		$ -					
		$ -					
	Subtotal:	$ 90,000	$ -	$ 10,000	$ 20,000	$ 30,000	$ 30,000

PREVENTITIVE MAINTENANCE/INSPECTIONS PROGRAM

Preventative Maintenance and Scheduled Inspections

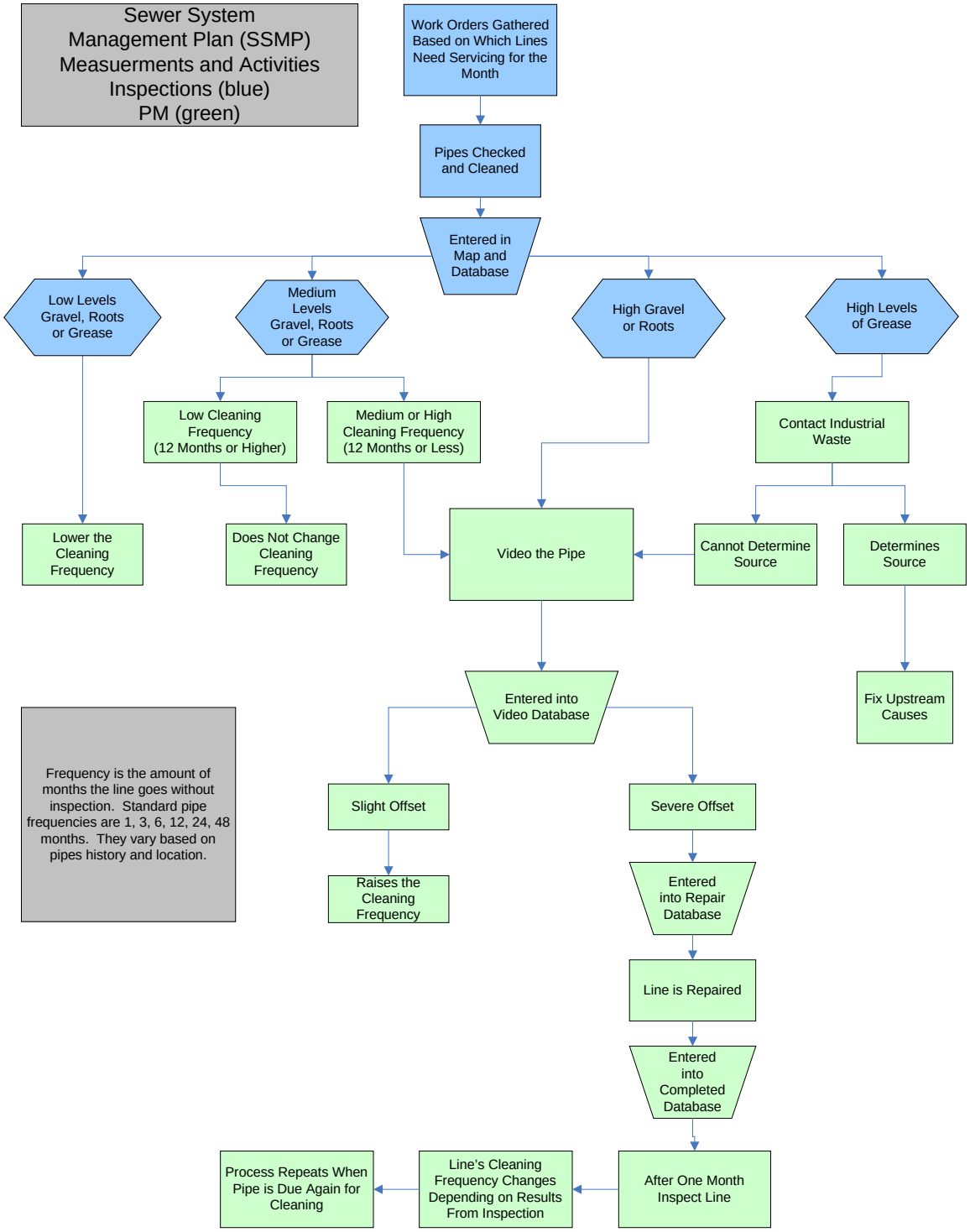
In order to maintain the health of the sewer lines a step-by-step process is being implemented to insure that not only will damage be fixed quickly but they will be prevented in the future. Although the management of the sewer lines is systematic, subjectivity and maintenance expertise is needed for the evaluation of the lines. All lines are put on an evaluation/cleaning schedule when they are first cleaned. Since this has only been implemented for the past few years there are some parts of the sewer system that have yet to be placed on the schedule. Evaluation/cleaning frequencies start at every month and increase to intervals of 3, 6, 12, 24 and 48 months.

At the beginning of the month sewer lines that are due to be evaluated according to the schedule are placed on a list which is given to the District's maintenance crew. These sewer lines are then evaluated and cleaned and depending on the level of intrusion evaluation/cleaning frequencies are updated. Sewer lines are evaluated based on low medium or high amounts of gravel, roots and grease intrusion. Sewer lines with low amounts of intrusions are less prone to SSOs, so the frequency of evaluation/cleaning is reduced. Depending on the area and history of the pipe an evaluation revealing medium intrusion will either result in the same evaluation/cleaning frequency or an increase in the evaluation/cleaning frequency. Any high intrusion result requires further attention.

For high levels of grease, Industrial Waste staff is contacted in order to check on upstream discharges. High levels of gravel, roots or grease also requires the sewer lines to be videoed to check for needed maintenance. All of the cleaned sewer lines that have no maintenance or video orders issued are entered into the computer database. Any lines that require video inspection are then entered into the video list database. If a video shows any slight offsets then no repair order is issued but the evaluation/cleaning frequency of the sewer line is increased. If there is a severe obstruction or offset then the sewer line needs repairing and entered into the repair database. These separate databases offer easy access and history to each of the sewer lines in the system. When the sewer line is repaired a summary, the date and the crew are entered into the database and it then goes on the completed construction list. After repair the sewer line is checked within one month. At that time, the evaluation/cleaning frequency will either be changed or remain the same.

See flow chart below.

Prioritize Preventative Maintenance (PM) and Scheduled Inspections



STAFF TRAINING

The sole publicly owned wastewater treatment facility within Sea Ranch Central is owned by the Sonoma County Water Agency (Agency). The Agency's maintenance staff is required to complete 12 Continuing Education Units (CEUs) annually. Workshops and/or conferences must be accredited by the California Water Environment Association (CWEA). Several of the accredited workshops are held at Agency offices by Agency staff accredited by CWEA. Workshop such as Confined Space, Air Monitoring, CPR, Excavation/Trenching Safety, Hazardous Energy Control, Traffic Control, and Fall Control are to the maintenance staff.

Maintenance staff are also encouraged to attend workshop and/or conferences on topics such as Collection System Maintenance, Environmental Compliance, Plant Maintenance, and Mechanical Technology

EQUIPMENT AND PARTS INVENTORY

The Sonoma County Water Agency maintains a large inventory of contingency equipment in order to lessen equipment or facility downtime. Contingency equipment such as portable pumps and generators are also kept on hand so as to insure proper response to emergencies. Along with the pumps and generators, other equipment, such as back trucks, a router, back hoes, a dump truck, bobtails, a wacker, viber plates, and ten wheelers are kept in inventory. These preparatory measures are made in order to guarantee that in the event of a failure, we will experience minimal service interruptions. A list of the Sonoma County Water Agency's vehicle inventory is attached; the vehicles highlighted in orange are solely dedicated to wastewater collection maintenance.