



TOWN OF TIBURON
1505 Tiburon Boulevard
Tiburon, CA 94920

Town Council Meeting
November 2, 2016
Agenda Item: *AI-3*

STAFF REPORT

To: Mayor and Members of the Town Council
From: Office of the Director of Public Works
Subject: Staff update on FY 2016-2017 Storm Drain Inspection, and request to authorize Storm Drain Repair Project design phase.
Reviewed By: *[Signature]*

BACKGROUND

In 2008, the Town completed a Storm Drain Master Plan (SDMP). Regarding the condition of the storm drains made of corrugated metal pipe (CMP), the plan states, "Several corrugated metal pipes placed in the 1940s and 1950s (estimated) have failed or are failing and are in immediate need of replacement." The economic life of CMP runs from 20 to 40 years, depending on environmental conditions. Failure is normally defined as the first perforation of the pipe. Virtually all CMP storm drains in Tiburon are over 40 years old.

The Town began cleaning and inspecting selected storm drain lines in 2011. The Town has identified 854 storm drain pipe segments. Prior to this year, 162 segments had been cleaned and inspected, with reports on 116 pipe segments. Of the inspected CMP segments with reports, 47% were found to have serious defects and were repaired or replaced.

In the FY 2016-2017 CIP Budget, Council approved \$130,000 in funding to clean and inspect over 70 CMP segments this year. The list of pipes to be inspected changed significantly from the time the CIP Budget was adopted until the work was completed. First, Public Works staff looked at many of the remaining CMP segments in advance of the contract being written and found many lines listed in the SDMP were not CMP. Then a number of additional CMP lines were found by Public Works that were not in the SDMP. This is noted as we have determined that perhaps as many as 75% of the pipes in the storm drain masterplan may be incorrect with respect to at least one descriptive element, such as material, size or location. Ultimately, the contractor inspected a total of 50 line segments.

ANALYSIS

Of the fifty lines inspected, twenty (40%) have major defects, that is, holes in the pipe. Two of these are on private property and were not dedicated to the County or Town leaving eighteen that need to be repaired or replaced. Others storm drain pipes have minor defects and exhibit signs of wear consistent with their age. Staff believes repair of these pipe segments can be delayed to future budget years. We do note, however, that when it is possible to simply line a CMP storm drain, there is considerable savings if the work is done prior to a hole developing.

Of the eighteen CMP segments that need repair now, ten segments, totaling 949 feet, should be increased in size, which requires complete replacement. The other six segments totaling 932 feet can be repaired by grouting and lining. Grouting and lining may be less expensive depending on the location of the segment. This will be determined during design.

Based on the last four storm drain projects completed in Tiburon, and information on recent bids from projects in other Marin jurisdictions, staff estimates the total cost of replacement and/or repair of all 18 CMP segments will be approximately \$550 per linear foot, or \$1.1M. It is important to note this estimate is preliminary, and will be refined throughout the design process.

A list of the 18 CMP segments identified with major defects is provided in the Table 1 below.

Table 1

Watershed	Road	Length	Existing Diameter	Diameter needs increasing?
Belveron B Watershed	Trestle Glen	80	24	No
East End 5 Watershed	Paradise	33	15	Yes
East End 5 Watershed	Paradise & Mar East	65	10	Yes
East End 5 Watershed	Paradise	125	12	Yes
East End 5 Watershed	Paradise	125	12	Yes
East End 5 Watershed	Paradise	125	12	Yes
Old Landing 1 Watershed	Hacienda Drive	247	15	No
Rock Hill A Watershed	Hawthorne	55	24	No
Mar West-Racoon	Lagoon View Drive	51	1	No
Old Landing 1 Watershed	Hacienda Drive	365	12	No
Rock Hill B Watershed	Hawthorne	39	12	Yes
Rock Hill B Watershed	Hawthorne	42	15	No
Rock Hill B Watershed	Rock Hill	237	20	No
Seafirth	Seafirth Lane	129	12	Yes
Seafirth	Seafirth Lane	120	18	No
Paradise	Paradise	55	12	Yes
Paradise	Paradise	55	18	Yes
Paradise	Paradise	55	18	Yes

FINANCIAL IMPACT

The Town maintains two reserve funds for use on this type of project, the Streets and Drainage Fund and the Drainage Impact Fund. The status of these funds is summarized in Table 2 below.

Table 2

Fund	Balance as of 6/30/16	FY 16-17 Budgeted Revenue	FY 16-17 Budgeted Expenditures	FY 16-17 Estimated Actual Expenditures	Estimated Funds available
Streets/Drainage	1,224,955	70,000	(290,000)	(165,000)	1,129,955
Drainage Impact	79,694	20,000	(100,000)	(100,000)	(306)

The estimated \$1.13M in available funds indicated above is a combination of the remaining balances in both reserve funds (\$1,004,919) and the estimated total unexpended CIP funds included in the FY16-17 Budget (\$125,036).

If Council wishes to proceed with addressing the CMP segments with major defects, staff will take the following steps:

1. Develop and issue a Request for Proposals to develop a biddable set of Plans and Specifications for the proposed project scope.
2. Return to Council for consideration to award contract for the design work.
3. Once bid set is complete, staff would bid the project and return to Council for consideration of the award of a construction contract, and authorization for any required budgetary transfers.

RECOMMENDATION

Staff recommends that the Town Council:

1. Receive staff report on status of Storm Drain Inspection process.
2. Authorize staff to issue a Request for Proposals for the design work associated with repairing, or replacing, the 18 CMP segments listed in Table 1 of the Staff Report.

Exhibits: Maps showing locations of damaged storm drain pipes

Prepared by: Patrick Barnes

Number & Location of Storm Drain Pipes Needing Repair

