

As noted in Section 12.2.1, a minor plan amendment will be required to move a project from Table 12-3 (Potential Future CIP) to Table 12-2 (10-year CIP).

Neither a minor nor a general plan amendment will be required if projects listed in Table 12-2 are implemented at a different time than shown in the table or if the estimated project costs are within 20 percent of the annually adjusted project cost.

The following examples of other minor plan amendments are given in Minnesota Rules 8410.0020, Subp. 10:

“...recodification of the Plan, revision of a procedure meant to streamline administration of the Plan, clarification of the intent of a policy, the inclusion of additional data not requiring interpretation, or any other action that will not adversely affect a local unit of government or diminish a water management organization's ability to achieve its Plan’s goals or implementation program.”

The BCWMC will prepare plan amendments in a format consistent with Minnesota Rules 8410.0140, Subp. 4. The rule requires that, unless the entire document is reprinted, all amendments adopted must be printed in the form of replacement pages for the Plan, each page of which must:

1. Show deleted text as stricken and new text as underlined (for draft amendments under consideration).
2. Be renumbered as appropriate.
3. Include the effective date of the amendment.

The BCWMC will maintain a distribution list of everyone who receives a copy of the Plan. Within 30 days of adopting an amendment, the BCWMC will distribute copies of the amendment to everyone on the distribution list.

12.6.3. 2010 Major Plan Amendments

In September 2010, BWSR approved and the BCWMC adopted a major plan amendment to add the following projects to the BCWMC’s 10-year CIP (Table 12-2): The North Branch Bassett Creek Project and the Bassett Creek Main Stem Reach 1 Project.

North Branch Bassett Creek Project Description

The North Branch Bassett Creek project reach extends for approximately 3,000 feet, from 32nd Avenue North to approximately 200 feet west of Douglas Drive, in the City of Crystal. The stream is relatively shallow in most places except for occasional deep pools. The riparian vegetation is a mixture of native and non-native trees and shrubs.

A feasibility study being completed by Barr Engineering has identified a total of 20 sites on this reach that need some form of stabilization to address bank erosion, scour, and/or bank failure. Of the 20 sites, four have minor to moderate erosion, 15 have moderate erosion, and one has severe erosion. The total length of bank erosion is approximately 1,500 feet. In addition to the eroded banks, there are five manholes from the City's sanitary sewer system that are either partially within the stream channel or within approximately five feet of the stream bank.

The concept plans in the feasibility study propose combinations of several stabilization techniques to prevent additional erosion and provide long term protection for the sanitary sewer manholes. The techniques proposed in the concept plans include riprap, j-vanes, cross vanes, biolog, live stakes, vegetated reinforced soil stabilization (VRSS), live fascines, selective tree removal and planting native trees and shrubs. Additional detail about the sites and concept plans is presented in the table below:

Table 12-5 Potential stabilization measures for erosion sites on North Branch Bassett Creek.

Site #	Station ¹	Site Length	Potential Stream Stabilization Practices ²
1	0+00	200	Grade banks to 2:1 slope. Install two cross vanes. Install 200 feet biolog. Remove four trees.
2	2+50	50	Grade banks to 2:1 slope. Install riprap for toe protection. Remove four trees.
3	3+50	75	Grade banks to a 3:1 slope Install riprap for toe protection.
4	4+25	40	Grade left bank to a 2:1 slope. Place removed material below undercut trees. Install riprap on placed material. Install biolog and live stakes on graded bank. Remove three trees.
5	6+00	75	Grade bank to a 3:1 slope. Install one cross vane. Install 150 feet biolog. Remove four trees.

Site #	Station ¹	Site Length	Potential Stream Stabilization Practices ²
6	7+50	150	Remove and dispose of failing wall. Grade both banks to 2:1 slope. Install one cross vane. Install 300 feet biolog. Remove eight trees.
7	9+40	40	Remove ten trees (three for salvage). Install riprap in front of sanitary manhole. Regrade steep banks to 2:1 slope.
8	11+00	25	Regrade banks to 2:1 slope. Install riprap to protect sanitary manhole. Install two j-vanes.
9	12+00	20	Clear debris jam.
10	13+00	20	Install riprap to protect sanitary manhole. Install one j-vane.
11	15+00	20	Install fill and riprap to protect sanitary manhole. Install two j-vanes.
12	16+60	200	Install 400 feet biolog. Install shade-tolerant shrubs. Remove three trees.
13	18+00	40	Grade steep bank to 2:1 Install 80 feet biolog. Install four j-vanes. Remove one tree.
14	19+00	30	Protect sanitary manhole by pushing stream away from manhole. Install riprap for additional manhole protection. Install four j-vanes. Remove three trees.
15	19+50	30	Remove two trees. Install 60 feet biolog. Install live stakes.
16	20+50	50	Remove four trees. Install 450 square feet of VRSS. Install two j-vanes
17	21+50	50	Remove disposed grass clippings. Install 100 feet biolog. Install 50 feet live fascines. Plant shrubs and trees to vegetate bank.
18	23+50	35	Remove two trees. Regrade banks to 2:1 slope. Install 2 j-vanes.
19	24+00	200	Remove one tree. Install 200 feet of biolog.
20	29+00	150	Remove 16 trees Install 1,000 square feet of VRSS.

1 Stream stationing: 0+00 at 32nd Avenue North

2 Exact stabilization measures and quantities to be installed will be determined during final design.

Bassett Creek Main Stem Reach 1 Project Description

Reach 1 of the Bassett Creek Main Stem extends for approximately 15,800 feet from Wisconsin Avenue to the Golden Valley – Crystal border. Two subreaches are included in the feasibility study being completed by Barr Engineering. The first (Subreach 1) is approximately 2,100 feet from Wisconsin Avenue to Rhode Island Avenue. The second subreach (Subreach 2) is approximately 4,200 feet from Duluth Street to the Golden Valley – Crystal city boundary. The stream is relatively shallow in most places except for occasional deep pools. Submergent vegetation was observed along much of Subreach 1; fish, crayfish, and frogs were observed in the creek in both subreaches. The riparian vegetation for Subreach 1 varied considerably between its two banks. The right bank (looking downstream) contained a healthy mix of native trees and shrubs, including willow, cottonwood, poplar and maples. However, the left bank was largely overgrown with buckthorn. The riparian vegetation in Subreach 2 varied from turf grass to native trees and shrubs, depending on how each landowner managed the vegetation.

A total of 15 sites, including seven sites on Subreach 1 and eight sites on Subreach 2, were identified as sites that require stabilization to address bank erosion, scour, and/or bank failure. Of the 15 sites, six have minor erosion, seven have moderate erosion, and two have severe erosion problems. The total length of bank erosion is approximately 890 feet.

The concept plans in the feasibility study propose combinations of several stabilization techniques to prevent additional erosion and provide long term protection for the sanitary sewer manholes. The techniques proposed in the concept plans include replacing a flared end section, riprap, j-vanes, cross vanes, biolog, live stakes, vegetated reinforced soil stabilization (VRSS), live fascines, selective tree removal and planting native trees and shrubs. Additional detail about the sites and concept plans is presented in the table below:

Table 12-6 Potential stabilization measures for erosion sites on Bassett Creek Main Stem Reach 1.

Site #	Station¹	Site Length	Potential Stream Stabilization Practices²
1	14+00	75	Install biolog for additional toe protection. Install shade tolerant shrubs. Remove two trees. Plant shady woods mix of native grasses and extent into turf grass in the lawn.
2	18+00	50	Install VRSS to stabilize steep slope. Remove five trees during VRSS installation.
3	24+00	75	Grade bank to a 3:1 slope Install riprap for toe protection. Seed bank with native grasses.

Site #	Station ¹	Site Length	Potential Stream Stabilization Practices ²
4	25+50	50	Install two j-vanes. Grade bank to a 2:1 slope. Install biolog. Remove three trees. Plant shade tolerant shrubs and grasses.
5	40+00	75	Grade bank to 2:1 slope. Install biolog for toe protection. Plant shrubs and trees. Remove four trees.
6	48+50	125	Grade bank to 3:1 slope Install riprap for toe protection. Seed bank with native vegetation and cease mowing to top of bank.
7	49+00	25	Fill in eroded channel with excess material from grading at other sites. Install riprap at both ends of the eroded channel. Install live fascines on bank above riprap. Remove two trees.
8	49+75	100	Install riprap for toe protection Install two j vanes. Install live stakes.
9	149+00	10	Replace flared end section. Install riprap around flared end section.
10	151+50	100	Install two cross-vanes. Install biolog. Install live stakes in the bank. Remove one tree.
11	156+50	15	Remove fallen tree. Install live stakes in eroding bank
12	160+00	100	Remove buckthorn. Install biolog and live stakes.
13	161+50	50	Install biolog. Install live stakes. Install fascines.
14	164+50	20	Fill in eroded bank. Install riprap at toe Install turf reinforcement mat to handle flows from parking lot. Remove three trees.
15	169+00	20	Fill in eroded bank. Install riprap at toe Install turf reinforcement mat to handle flows from parking lot. Remove four trees.

1 Stream stationing: 0+00 at Golden Valley-Crystal border.

2 Exact stabilization measures and quantities to be installed will be determined during final design.