

Quittapahilla Creek Stream Restoration Projects

Project ID	Location	Length (feet)	Existing Problems	Proposed Solutions
1	UPS of 22 nd Street (Reach 1)	1450	Unstable C4/F4 channel with moderately high to high bank erosion, debris jams, aggradation (lateral and mid-channel bars); failing storm drain outfalls.	Alt 1 – Construct a stormwater wetland basin immediately upstream of 22 nd St to provide peak attenuation and water quality management. Alt 2 – Remove debris jams, stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat. Both alternatives require repair of storm drain outfalls.
2	22 nd St – Chestnut St (Reach 2)	850	Unstable C4 channel in lower section with moderate bank erosion. Backwater created by undersized bridge opening at Chestnut St causing aggradation (lateral and mid-channel bars).	Raise road and replace bridge with larger bridge span. Stabilize banks and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
3	Chestnut St – Reigle Auto Upholstery (Reach 3)	1640	Unstable C4 channel with moderate to moderately high bank erosion throughout.	Alt 1 – Construct a stormwater wetland basin to provide peak attenuation and water quality management. Alt 2 – Stabilize banks and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.

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4	Snitz Creek – Elizabeth St (Reaches 7 and 8)	1475	Unstable C4 with incising streambed, mod high to high bank erosion in upper and lower sections, heavy sedimentation, aggradation, numerous tires along middle section	Install grade control structures at DS end of upper section and raise streambed, stabilize banks, narrow channel in middle section by constructing toe benches along channel margins, and install structures throughout (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
5	Elizabeth St – Bedrock Step UPS of Garfield St (Reach 9)	1400	Unstable C4 with moderately high to high bank erosion throughout, heavy sedimentation and aggradation; minimal to no buffer along both banks in middle and lower sections.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat. Plant a minimum 20 foot buffer along the right bank and 35 feet along the left bank.
6	Garfield St – Bedrock Ledge (Reach 11)	1060	Unstable C4 with moderately high to high bank erosion throughout; minimal to no buffer along right bank in upper and middle sections and left bank in lower section.	Stabilize banks and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat. Plant a minimum 25 foot buffer along the right bank and 35 feet along the left bank.
7	Bedrock Ledge – UPS of Split channel at Mill St (Reach 12)	800	Localized bank erosion and minimal to no buffer along left bank in upper and middle sections.	Stabilize banks and plant a minimum 35 foot buffer along the left bank.

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8	UPS of Cleona Blvd – Drop at Footbridge (Reach 14)	1500	Unstable C4 with high bank erosion throughout; heavy sedimentation, aggradation; and minimal to no buffer along both banks	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat. Plant a minimum 20 foot buffer along the right bank and 35 feet along the left bank.
9	Drop at Footbridge – Beck Creek (Reach 15)	2150	Unstable C4 with moderate bank erosion upper and lower sections, debris jams, heavy sedimentation, aggradation; and minimal to no buffer along the right bank in the upper section both banks in the lower section.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat. Plant a minimum 35 buffer along both banks.
10	Beck Creek – Meander at Walnut St (Reaches 16 and 17)	1950	Unstable C4 with moderate to moderately high bank erosion; debris jams, heavy sedimentation, aggradation (lateral bars) throughout.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
11	Meander at Walnut St – Meander DS of Willow St (Reach 18)	1200	Unstable C4 in upper section with high bank and slope erosion; aggradation, cutoff channel, and failing storm drain outfalls. Minimal to no buffer along right bank in middle section.	Stabilize banks and slopes, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat; repair of storm drain outfalls; plant minimum 20 foot buffer along right bank.

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12	End of Bedrock-Boulder Meander DS of Spruce St – Old Dam in Quittie Park (Reach 21)	1600	Localized bank erosion.	Stabilize banks and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
13	Old Dam in Quittie Park – SD Channel along Bachman Rd (Reach 22)	1150	Unstable C4 with moderate to moderately high bank erosion in lower section; heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
14	UPS of Rte 934 – Meander at King St (Reach 23 lower section and 24)	2100	Unstable C4 moderately high to high bank erosion, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout; minimal to no buffer along right bank.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat; plant minimum 20 foot buffer along right bank.
15	Meander at King St – Split channel DS of Old Mill Dam (Reaches 25, 26 and upper 27)	3675	Unstable C4/F4 with high to very high bank erosion, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout; minimal to no buffer along right bank in upper section.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat; Construct single channel DS of old mill dam; plant minimum 35 foot buffer along right bank in upper section.

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16	Rte 422 – Concrete Flume DS of WWTP (Reach 28)	2150	Unstable C4 with low to moderate bank erosion, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Narrow channel by constructing toe benches along channel margins; install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
17	Concrete Flumes DS of WWTP	2550 and 3275	Concrete flumes conveying Quittapahilla Creek are devoid of habitat and aquatic organisms. Secondary flume is deteriorated with broken sections of concrete and gaps allowing storm flow erode the soil base and causing further damage.	Remove both flumes and reconstruct a natural channel along this section of the creek. Construct a large floodplain wetland system to provide flood storage, water quality and habitat. At a minimum the damaged flume should be repaired.
18	End of Concrete Flume – Clear Spring Rd (Reach 29)	2000	Unstable C4 with moderately high to high bank erosion, debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
19	Clear Spring Rd – Syner Road (Reaches 30 and 31)	2700	Unstable C4 with moderate to moderately high bank erosion, numerous large debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
20	Syner Rd – Killinger Creek (Reaches 32 and 33)	2200	Unstable C4 with moderately high to high bank erosion, debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.

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21	Killinger Creek – School Creek (Reaches 34 and 35)	3250	Unstable C4 with high to very high bank erosion, debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, remove rip-rap in fishing club and install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.
22	School Creek – Old Mill Race at Forge Farm (Reaches 36 - 38)	5300	Unstable B4c/C4 with high to very high bank erosion, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout; islands immediately DS of Palmyra-Bellegrove Bridge.	Remove islands DS of Palmyra-Bellegrove Bridge; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.
23	Old Mill Race at Forge Farm – Unnamed Tributary (Reaches 39 and 40)	3210	Unstable C4 with moderate to moderately high bank erosion in upper section, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat.
24	Unnamed Tributary – Syner Rd (Reaches 41 and 42)	2425	Unstable C4/B4c with high to very high bank erosion in upper section, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout.	Stabilize banks, narrow channel by constructing toe benches along channel margins, and install structures (e.g., log vanes, rock vanes, or log-boulder J-Hooks) to divert flow away from banks and create habitat; plant trees along right floodplain.

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25	Syner Rd – Bedrock Section DS of Powerlines on Blauch Farm (Reaches 43 and 44)	2450	Unstable B4c/C4 with moderate to moderately high bank erosion in the lower section, debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout; minimal to no buffer along right bank in middle and lower sections.	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat; relocate fence a minimum of 25 feet from top of bank and plant buffer with trees and shrubs.
26	Bedrock Section DS of Powerlines on Blauch Farm – Riffle UPS of wetland swale that drains pond in left floodplain (Reaches 45 and 46)	2625	Unstable C4 with moderate to moderately high bank erosion, debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.
27	Riffle UPS of wetland swale that drains pond in left floodplain – Riffle at Beach Area (Reaches 47 and 48)	3150	Unstable C4 with moderate to moderately high bank erosion, numerous debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.
28	Riffle at Beach Area – Valley Glen Rd (Reaches 49 and 50)	1800	Unstable C4 with moderate bank erosion, numerous debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.

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29	Valley Glen Rd – Swatara Creek (Reaches 51 and 52)	1950	Unstable C4/F4 with moderate to high bank erosion, numerous debris jams, heavy sedimentation, aggradation (lateral and mid-channel bars) throughout	Remove debris jams; stabilize banks, narrow channel by constructing toe benches along channel margins, install structures (e.g., log vanes or log-boulder J-Hooks) to divert flow away from banks and create habitat.
	Total Length	61,760		