

## McCoy Creek (MC) – Notes/Assumptions

**MC – 04 – Stabilize Banks**- Private property – creek corridor park owned and managed by Calabasas Park Homeowners Assn. (CPHA). Eastside is condos – west side is open space/parkland. Creek mostly natural channel with some minor bank erosion problems, mainly at channel bends – Bedrock (sandstone) exposed in some banks. Some banks below condos protected by stacked gabion baskets, and rock riprap.

Several small bank erosion problems; most less than 40 feet in length with vertical banks no more than 5 to 6 feet. The two largest are about 125-150 feet long, with 6-8 foot vertical banks. Creek is shaded with large/mature oaks, could create low flow terrace at  $\pm$  4-5' above channel.

Level 3 bank protection, planted willow rock toe 150 l.f. @ \$250/ft = \$37,500 plus 15% field engr. & constr. inspection = **\$43,125**. Allow \$10,000 for O&M. Probably several other minor/local bank erosion problems done at same time.

No infrastructure threatened. Recommend a comprehensive restoration and bank stabilization plan be prepared for entire CPHA – allow \$30,000 for plan and up to \$120,000 for implementation.

**MC – 05 – (5a & 5b) Remove barrier to fish passage.** – This is channel segment upstream of Park Capri below Park Granada and Calabasas Parking, Countryside Financial property. There are 2 barriers, - 1 about 100 ft. upstream of Capri box culvert and the second about 50 feet below Calabasas Parkway Culvert

MC - 5A consists of a 2' – 3' concrete weir and apron upstream of Park Capri. This can be removed to 12" above grade and a series of 3-4 rock step pools added above and below. Each rock step pool across the 40' wide channel section would require: 4' trench x 2' wide x 40' long = 12 cubic yards x 2.5 tons/yd. = 30 tons x \$80/ton = \$2,400 plus excavation = \$5,000 per step pool – 4 pools = \$2,000. \$5,000 design inspection = \$25,000 plus allow \$5,000 for concrete demolition = **\$30,000**.

This is a low to medium priority project, and should be completed concurrently with other projects on Countryside Financial property. Currently no steelhead in creek or watershed.

MC-05b consists of an approx. 4' drop on concrete shelf associated with Calabasas Parkway box culvert. The culvert may also have some velocity problems requiring possible installation of baffles.

This a more complicated design than 5a. Project would involve concrete demolition to create a 2 or 3 step concrete weir, and 6 – 7 step pools. Concrete demolition and reconstruction - \$15,000, 6 step pools @ \$5,000 = \$30,000. Total construction - \$45,00. Inspect - \$5,000 = **\$50,000**. Total of MC05a, 05b = **\$80,000**.

Since currently no steelhead in McCoy – Low priority.

**MC – 06 – Bank instability and in-channel grade control** – Countryside Financial property along Park Granada between Park Capri and Parkway Calabasas.

Series of small 30-40' x 6' high local bank instability problems, and a larger –60' channel bank problem immediately downstream of Parkway Calabasas box culvert. The larger erosion problem just below Parkway Calabasas is a failed former repair as evidenced by stacked concrete slabs that have been moved, and the presence of an erosional scarp.

Total of 5, 40' type 3 bank repair problems = 200 l.f. @ \$300/l.f. = \$60,000, plus inspection at 15% = \$9,000 = total **\$69,000**. If channel incising the bank protection work should be completed along with the fish passage barrier removal work and should include willow planted rock toe. The channel is in general, well vegetated and the bank instability problems are minor.

No top of bank infrastructure is threatened except (possibly in future) Countryside Financial jogging trail. Total Countryside Properties improvements is \$149,000 total for MC-05 and 06.

**MC – 07 Redesign Undersized Culvert – Calabasas Golf Course** – Undersized culvert just above Calabasas Parkway – Remove and replace existing culvert with two 24” culverts. Cost of culvert installation and field engineering – **\$10,000**.

**Comment**

As with all projects above MC – 05, needs to be completed as part of any more comprehensive redesign of golf course drainage system. Needs to be coordinated w/golf course to minimize impact on playing time/revenues, and any modification of golf course T-/green layout

**MC-08 – Remove Sediment – Calabasas Golf Course**

Sediment has accumulated in channel along a 70-80’ length and created wet boggy conditions and reduced channel capacity. For planning purposes, assume 90’ length, 8’ wide channel and 3’ of sediment excavation = 80± cu. yds. Excavation, haul-off @ \$50.00/cu.yd. = \$4,000. Allow \$1,200 for field inspection and \$1,200 for replanting = **\$6,400**.

**Comment**

**Low priority** – see comment note in MC-07

**MC-09, MC-10, MC-11, 12 – Pull back banks & restore wetlands** – Remove sediment and stabilize banks Calabasas Golf & Country Club.

This series of restoration actions should be undertaken as part of a comprehensive drainage, stream restoration, and course alignment plan for golf course. Drainage in this area passes in and out of small underground culverts, many appear undersized, and some are under greens and fairways. Do not recommend a “piecemeal” approach to drainage and habitat improvements for this area.

Because of potential impact on golf course, including playing times, revenues, and course layout revisions, this will be both technically challenging, expensive, and perhaps difficult to convince golf course owner/manager of merits. Work should probably be done in late fall to minimize impact on golf course, and perhaps stage/phase into 2 segments, with projects MC – 07 – 12 (downstream of entry at Entrada Golf Course entry) year 1 and MC - 13 – 20 upstream of entry in year 2.

Costs very difficult to estimate without comprehensive Master Plan, as should perhaps be completed by a golf course architect along with some course revisions, but probably on order of \$30,000 planning and conceptual design study, and budget **\$160,000** for implementation of MC-07 - 12, including construction and observation costs. This is an approx. 800 ft. length of creek and restoration/repair would be \$200/ft erosion control, rock work and planting. Annual O&M costs for 3 years \$10,000/yr. = \$30,000

**Comment**

Proceed first with a comprehensive creek management and restoration plan working closely with golf course owner/manager and golf course architect. Since private course with limited public access, may be difficult to grant fund.

**MC 13-20 – Remove barrier to Fish movement** – Improve/replace weirs, monitor bank erosion, stabilize bank and headcut, monitor channel instability, fix culvert angle, create/restore wetlands.

This series of projects are located above or upstream of the Golf and Country Club entry at Entrada Drive. They should be completed as one group and not piecemealed. Much of the streamway is located in apparently undersized/underground culverts and there is evidence of surface flow in swale over culverts. Restoration of projects 13 – 20 could be completed either with 07-12, or as a separate phase in a different year, in late fall. Need to start the projects downstream in watershed and move upstream, not logical to fix fish passage problems at upper ends first. Planning study of \$30,000 with an implementation budget as part of comprehensive golf course drainage improvement and creek restoration plan. Stream reach above Entrada is about 100 feet, so at 200 ft. is about **\$220,000**. Total Golf Course Plan would be \$60,000, with designs geared to an implementation budget of \$220,000, and annual O&M costs of \$10,000 for 3 years or \$30,000.

**Comment**

Same as above, prepare comprehensive plan, working with golf course architect, and design improvements golf-course wide to a total budget of \$380,000. Improvement budget would partially dictate design. This is a very long range goal, tied to future golf course modifications.

**MC – 21-23 – Stabilize Headcut, Channel Incisions** – This series of 3 projects are located on upper McCoy Creek above the Calabasas Golf and Country Club. Creek channel is apparently private in this area with difficult access through a gated community. The work would involve repair of some bank erosion by placing willow planted rock toe at 2 locations, and extending the rock across the channel bottom to create no higher than 12" above channel invert grade control. Assuming total of 120 l.f. of type 3 channel protection (willow planted rock toe) at \$250/l.f. = \$30,000. Two rock grade control structures at \$5,000 each = \$10,000. So total work is \$40,000. Allow 15% inspection, or \$6,000. So total construction, inspection and field engineering is estimated to be **\$46,000**. Mobilization/access is poor.

**Comment**

Low priority project – no infrastructure threatened.