



To: Jody Mintken, President
Valley at Winter Park Homeowners Association

CC: Matt Small, Valley at Winter Park Water District

From: Geoff Elliott, Grand Environmental Services 970-509-0199
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Date: June 24, 2011

RE: Strategic Environmental Planning for Valley at Winter Park

This memo outlines results of our initial environmental site assessment for the Valley at Winter Park. Our activities to date include research of (Google Earth) aerial photos and maps as well as site plans made available by Matt Small. Field work included three site visits to evaluate habitat conditions during and immediately after snowmelt, focusing on area within road loop, including site visit with WatersEdge Reclamation (Dirk Eichler) then Matt Small. Phone contacts include Grand County Planning and Zoning (Krys Manguso), Headwaters Trails Alliance (Maura McKnight), SSR Weed Control (Billy Sumerlin), Tabernash Meadows Water and Sanitation District (LL Course), and Harrington Landscapes (Paul Harrington). Our work is reconnaissance in nature but does offer insight into site conditions and opportunities for future management.

A) Watershed – the Valley at Winter Park (VaWP) site is located in a headwater setting tributary to Skunk Creek. Three small drainages (1st order) coalesce into one larger drainage (2nd order), with wetlands.

- Clay loam soils (NRCS Cowdry Loam and Cimmaron Loam), deep and well drained from glacial drift material, slow permeability and shrink-swell potential, erosion, limited percolation.
- Gentle terrain, channel limited to natural 2nd order drainage, drainage improvements, and gullies .
- Typical pattern = wet early season with snowmelt, and drying out through the season.
- Natural drainage is highly modified old golf course improvements including blocked swales and subsurface drainage which increase spring runoff and dry area out during summer.

- Golf course drainage is extensive and conflicts with natural habitats, will pose challenges for restoration.
- Pond is part of subsurface drainage system, plastic liner, probably perched about water table.
- Moderate erosion in places including erosion cutting headward into golf course areas.

VISION: Self-sustaining mountain watershed in balance with natural water supply. Forested slopes above mesic + wetland meadows.

RECOMMEND: Remove or plug artificial drainage system to maintain more natural hydrology in upland areas. Maintain irrigation system to utilize in revegetation.

B) Habitat Conditions – mix of cleared lodgepole pine forest and grassy meadows, minor wetland.

- Lodgepole pine (LP) forest beginning regeneration after mountain pine beetle, remaining LP starting to fill out but expect more “wind throw”, many small LP saplings coming up, some spruce/fir, rare aspen. This habitat is mostly on private lots within subdivision.
- Valley floors mostly grassy, mostly not wetland, rare willow. Erosion and headcutting in several places puts grassy habitats at risk. This habitat is mostly on open space.
- Primary wetland area in relatively good condition, includes very high quality “Fen” core.
- Woodland wildlife includes blue grouse, snowshoe hare, black bear, mule deer and elk, songbirds, birds of prey. Wildlife habitat is limited now due to golf course development and pine-beetle mitigation, should grow in significantly next 10 years.

VISION: Regenerating LP + conifer forest on rolling slopes of higher ground, aspen rimming forest, grassy meadows with willow-shrub drainages. Golf course features could be softened via reshaping and plantings that bring more cohesive visual.

RECOMMEND:

- Soften golf course features as part of wood chip mitigation.
- Detailed survey of habitat areas and priorities for conservation.
- Discuss on site with USDA Natural Resource Conservation Services (NRCS) and/or CSU Extension Agent

- Build nursery area(s) to plant and grow shrubs and trees. Need protection from wildlife.
- Maintain water allocations for revegetation.

C) USACE Wetland Permit

- Wetland impact from road fill (0.17 acre) was permitted by USACE.
- Due diligence includes field work and research, generally on track.

VISION: Wetland corridors in balance with surrounding watershed, high quality shrub habitats offer forage and refugia for elk/mule deer, nesting for songbirds.

VISION: Yes small amount of additional wetland may be possible to construct, probably not large scale “mitigation bank.”

RECOMMEND: Evaluate detailed hydrology and setting for possible wetland mitigation for other’s off-site mitigation.

D) Woodchips – GES developing team and strategy to process woodchips on site.

- Woodchip are now common concern in Grand County:
 - No place to dispose at this time – County Landfill is closed, everyone has piles of their own.
 - Tend to be high in acid content, changing soil conditions away from proper planting chemistry.
 - Generally too low in Nitrogen to compost effectively.
 - When laid onto surface generally too dry to compost effectively
 - When laid in too thick or in holes, tend to collect water and “go septic,” producing very funky black stinky water.
 - Settling makes disposal areas unsuitable for structural modifications later
 - Fill into low areas can put wetlands at risk.
- Yes possible to move ahead with pilot project Fall 2011

VISION: Utilize woodchips on site as landscape resource, soften GC features, promote revegetation.

RECOMMEND:

- Utilize woodchips as resource in open-space landscape, soften golf course features
- Minimize hauling.
- Protocol:
 - Strip topsoil from disposal areas, mostly between greens
 - Lay in woodchips in thin layers (12-18 inches deep)
 - Cover with topsoil from greens
 - Seed and mulch
 - Irrigate as necessary, then wean off water as possible over time
 - Treat weeds twice per year for 3-5 years

E) Trails –trail system already laid out for Golf Course along with access roads, parts are visible on landscape

- Plenty of opportunities, recommend loop trail around open space, 2-mile loop possible
- Link to “Community Gathering Place” by pond
- Link outward to Fraser/WP? USFS?
- Trail surface = dirt? Gravel? Wood chips?
- Public easement for through-going riders?
- Headwaters Trails Alliance (HTA) master plan does not include V@WP area but HTA Director is available to advise and always open to proposals.

VISION: An integrated trail system with multiple loops, walking + bikes + ???

VISION: Connect trails to neighboring areas for increased connectivity.

RECOMMEND: Develop integrated trail plan, ask HTA for guidance and teaming on trail projects.

F) Funding Sources – good expectation for small grants to leverage HOA funds

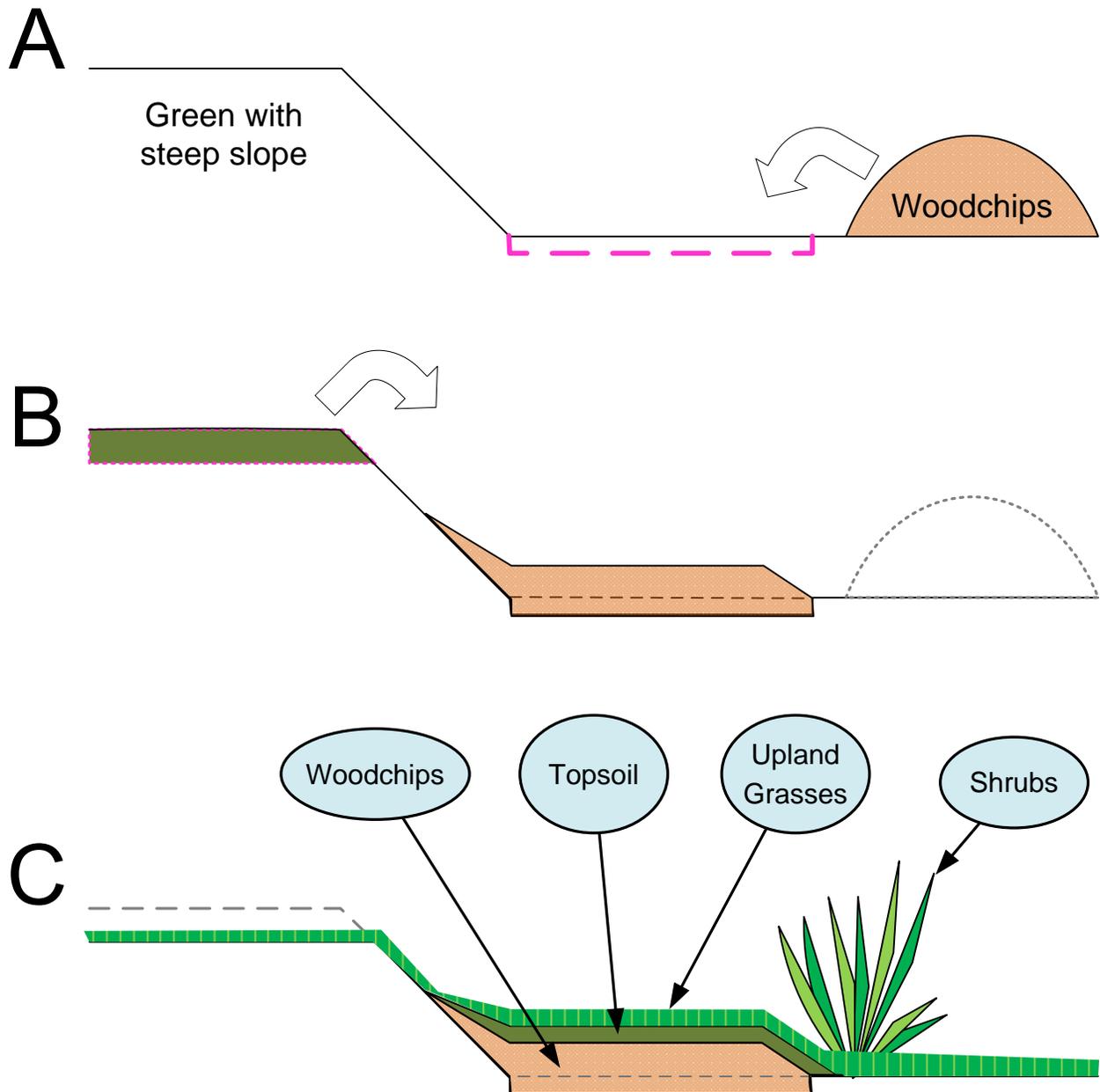
- Revegetation and Habitat work
 - USDA Natural Resources Conservation Service

- National Elk Foundation?
- National Fish and Wildlife Foundation?
- Trails
 - Headwaters Trails Alliance?
 - Great Outdoors Colorado in collaboration with HTA, Grand County?
- Wetlands – offer mitigation to others in return for landscape work.

RECOMMEND:

- Set aside cash for grant match.
- Develop process to maximize HOA funding with grant leverage.

G) Other Considerations?



Cross-Section Schematic of Proposed Woodchip Disposal: Present conditions include tall greens with steep sides and woodchips on lower meadow. Aim is to soften golf course features by disposing of woodchips along toe of slopes, creating “terraces” along drainages. In A) existing topsoil in disposal area would be harvested and stored, and woodchips laid into thin layer at toe of slope. In B) topsoil from adjacent green would be placed on top of woodchips along with stored topsoil to offer growth medium. In C) the new topsoil areas would be seeded and mulched, and shrubs planted along new toe of slope.