

Minutes
Contra Costa County IPM Advisory Committee
Subcommittee on IPM Cost Accounting
June 17, 2014

Members present: Susan Heckly, Michael Kent, Marj Leeds, Joe Yee

Members absent: Cece Sellgren, Matt Slattengren

Staff present: Tanya Drlik, IPM Coordinator; Kevin Lachapelle, Grounds Division

Members of the public present: Shirley Shelangoski, Parents for a Safer Environment

1. Introductions

2. Public comment on items not on the agenda

Shirley Shelangoski read a statement and provided documents. See attached.

3. Approval of minutes from April 15

It was moved and seconded that the minutes be approved as corrected (MK/JY).

The motion passed unanimously:

AYES: Kent, Leeds, Yee

NOES: None

ABSTAIN: Heckly (absent at last meeting)

ABSENT: Sellgren, Slattengren

4. Review and discuss cost data collected with Grounds Division Manager

5. Discuss next steps

Items 4 and 5 were taken together.

The IPM Coordinator gave a report on information collected on the costs of maintaining turf vs. ornamentals.

From talking to County Grounds Staff, she learned the following:

- The issue is complicated.
- Formal ornamental plantings with high water use and fast-growing plants can take just as much or more water and maintenance than a similar area of turf.
- So much depends on the site, how it's planted, and with what.
 - Informal plantings with ordinary water-use plants need less maintenance.
 - Informal plantings with drought-tolerant plants use much less water and need far less maintenance.
 - If plants are chosen properly (right plant/right place) and are planted properly (enough room for each plant to reach its natural size), they can be left alone and require maintenance perhaps only 2 times per year.
 - Drought tolerant plants will need water for around 3 years to get established, but then should be able to make it on their own (although in severe drought, they may need supplemental water)
- Other factors contribute to the cost of maintenance:
 - Deferring plant maintenance (which the County started doing during the recession) can greatly increase maintenance time when the decision is made to resume maintenance. Often plants have grown into a jungle that can take a huge amount of work to tame, and the site looks unattractive once the work is done.

- Overplanted sites take much more maintenance and water because there are more plants to maintain, and often more kinds of plants that must be treated differently.
- Plants in the wrong place increase maintenance—for example, if plants are too close together or too close to the building or the sidewalk, they will need constant pruning.
- No-mow turf that is allowed to go dormant during the summer can use much less water and need much less maintenance, but people will have to accept brown grass in summer.
- Old irrigation systems need much more maintenance because there are so many more problems as they age.
- Drip irrigation can require much more attention than traditional sprinklers because the lines are delicate and vulnerable to vandalism, chewing from animals, clogging, or being cut by shovels or other tools.

The IPM Coordinator researched several other aspects of costs

Santa Monica Garden/Garden Project

- In 2004, the City of Santa Monica partnered with Santa Monica College to compare a native plant garden with a traditional garden.
- Their goal was to persuade homeowners and landscape professionals that sustainable landscaping was better for the environment and just as attractive.
- Their Native plant Garden:
 - California native plants *appropriate to the area*
 - A water-efficient drip irrigation system
 - A weather-sensitive irrigation controller
 - A system for capturing storm water runoff for groundwater recharge
- Their Traditional Garden:
 - Typical front yard found in Southern California
 - Exotic plants that originate from northern Europe and the eastern U.S.
 - A standard, user-controlled sprinkler irrigation system
 - No provision for runoff mitigation
- Since 2004 the City has been collecting data for both yards:
 - The native garden uses 83% less water
 - Creates 56% less green waste
 - Requires 68% less maintenance
 - The principles demonstrated in the Native Garden are cost-effective, environmentally beneficial, and easy to replicate. When properly installed, these landscapes need minimal maintenance.

The Texas A&M University Landscape Conversion Cost Calculator

- This is a spreadsheet that may be useful to the County.
- It's designed to estimate the cost of converting a current landscape to one that requires less irrigation and maintenance and produces less green waste.

Costs for Converting a Small Non-play Area to Artificial Turf

- So far the Grounds Manager has gotten one quote (from Community Playgrounds, Inc.):
 - \$28.00/sq ft for a 500 sq ft area (=\$14,000)
 - Approx. \$25.00/sq ft for 1000 sq ft area (=\$25,000)
 - Includes
 - excavating the existing grass and soil and hauling it away
 - installing 5.75" base rock
 - installing a nailer board for artificial turf
 - installing the artificial turf (50 oz green w/infill)
 - does not include resilient cushioning

Costs/Amounts of Herbicide used on County Properties

- The Public Works Accounting Department could not produce a report with the data the committee wanted.
- Using accounting reports, the IPM Coordinator looked at data for about 105 properties for FY 12-13.

- The data available are not suited to understanding the cost of maintenance at any particular site.
- To understand the data, one must have detailed knowledge of each site—what kind of landscaping is there, how much paving, how deteriorated the paving is, whether or not the Division is trying to maintain bare ground, etc.—and information on how labor and water use is categorized.
- Compiling the data for herbicide use at each site in the County would have to be done by hand and would take many hours. The Grounds Division does not use a large amount of herbicide, and the most herbicide is used at the Marsh Creek Firing Range where bare ground must be maintained because of the requirements for a firing range and because of fire danger.

Some of the questions/comments from the committee, staff, and the public were as follows:

- Is stormwater runoff being captured in the County and directed back into the landscape?
 - Yes in some places, for example at the new West County Health Center. All the paving is permeable, and all parking and roofs drain into large bio swales. It took some time for the Grounds crew to become familiar with maintaining the swales and the new plants, but now the maintenance time is a lot less there.
- What would it cost to convert the 2 turf patches at 625 Court in Martinez to artificial turf?
 - It would cost around a total of \$50K.
 - This is very expensive for two 1000 sq ft areas. The cost might be justified by making 625 Court a showcase.
 - It's easier to justify putting artificial turf in odd shaped turf areas that are hard to maintain.
- The best case is a 20 year return on the investment of installing artificial turf.
- At 597 Center in Martinez there is a small piece of turf that is costly to maintain because the gardeners have to take out the mower for 10 minutes of use.
- At 597 Center there is also ivy in some areas. Ivy can be problematic because it is invasive and rats can live in it. On the other hand, it is drought-tolerant, low maintenance, and can be useful if it's planted where something green is needed and it is away from buildings.
- Landscaping should be easy to maintain and drought-tolerant. Ornamentals should be either drought-tolerant California natives or Mediterranean plants, and they must be appropriate to the site. Not all California natives are low water use, and many have characteristics that would make them unsuitable for use in County landscapes, such as being tricky to grow.
- Artificial turf may not be the answer for County landscaping. It is expensive, it is a petroleum product, recycling the product after it's worn out may be difficult and have environmental consequences, and weeds can still grow on top of it where soil collects.
- Converting a lawn to ornamentals would involve the use of herbicides to kill the turf. Sheet mulching can be used to kill a lawn, but that process is very labor intensive and Grounds does not have the labor available.
- Each County site is unique. It's not possible to calculate the maintenance time and costs for all County sites until each site is examined separately.
- There are many County sites with dead and dying plant material. These are prime sites to examine for re-landscaping with drought-tolerant plants. The irrigation systems at those sites are designed for the old plant material, and the cost of fixing the irrigation would have to be factored in.
- People's expectations need to change:
 - They cannot expect perfect turf, or any turf.
 - They cannot expect County landscapes to be weed-free.
 - During the dry season, people cannot expect lush, green landscapes.
- Could goats be used for weed control at a place like Summit Center in Martinez?
 - Goats are more expensive, and herbicide is not being used at Summit Center anyway.
- Most of the spot-spraying by the Grounds Crew is in cracks and crevices in pavement. Simply weed-whacking weeds in cracks would mean the weeds would have to be cut over and over, using more labor than Grounds currently has. Weed-whackers also throw up rocks that can hit workers and cars. Filling cracks is expensive and has environmental costs as well. Before cracks can be filled, weeds must be killed with herbicide to prevent them from growing through the paving.

- Perhaps sites should be prioritized for changes? Medical sites, Head Start sites, and high traffic sites could be high priority sites.

The committee discussed possible recommendations to the Board of Supervisors, such as looking for opportunities to change people's expectations about landscaping and recommending a general policy for creating new County landscapes and renewing existing landscapes. The thought was that a policy would have to be general enough to accommodate the diverse uses of County landscapes and yet encourage water and energy savings and low maintenance.

6. Plan agenda for next meeting

The committee will discuss recommendations to the IPM Advisory committee.