

## Landscape EcoBiz Contract Specification Ideas

Here are some suggestions for text additions to standard maintenance contract specifications. *Italics* are actual contract language, normal font are other suggestions

- I. Goal Statement – Be very clear that a goal of the contract is to limit the resource use and pollutant release from landscape (and other) maintenance activities. Use some of the possible examples for goals of the building’s landscape maintenance:
  - “To provide a lush green aesthetic with year around plant interest “
  - “To provide a green, healthy plant space that limits the amount spent on maintenance”
  - “To provide a chemical free space with limited allergen generation”
  - “To provide a lush turf area that allows for child and dog use”
  - “To provide habitat values to a variety of native and migratory birds”
  
- II. Site Design – the basic premise here is getting the right plant for the right place. The first step is to determine the site usage and need for active recreational versus passive recreational areas – think about alternatives to turf for the green carpet aesthetic.
  - A. Design on contour – consider use of terraces, balanced cuts and fills and other measures to minimize overall ground disturbance.
  - B. Use existing plantings. Search for ways to save plants in place or salvage and recycle into the new planting scheme.
  - C. Require plants that:
    1. Are native or otherwise do well in our climate with limited inputs (water, fertilizer, pesticides) and maintenance requirements (mowing, pruning); and
    2. Will survive the specific sun, moisture and other site-specific requirements for their placement; and
    3. Are from local applies / sources; and
    4. Have low embodied energy requirements; and
    5. Have good habitat or companion planting attributes.
  - D. Conduct a soils analysis to determine whether specific amendments will be needed for installation and long-term maintenance.
  - E. Design plantings into irrigation zones grouping plants with similar water needs. Require an irrigation system controller.
  - F. Use pervious paving materials and provide appropriate stormwater management for all new hardscape areas.
  - G. Design water features with full recirculation and drainage systems. Assure that open water surfaces are at least 60% shaded by water plants or adjacent plantings.
  
- III. Installation – Proper plant installation directly links to the final soil quality and longevity of plantings and structures.
  - A. Obtain all applicable zoning, building, stormwater, grading, plumbing and electrical permits, and

- B. Minimize ground disturbance and avoid running heavy equipment across planting areas. Do not till or grade slopes over 20%; and
- C. Protect, salvage and reuse or donate existing plant materials; and
- D. Create a Construction Management plan that spells out the phases, timing, disturbance and storage areas, and erosion control techniques to be used on-site; and
- E. Amend soils with well-aged compost or with nutrients as specified by onsite soils testing. Compost can also make a great mulch; and
- F. Install plantings and structures at ideal times if possible– plants fall or late winter, structures in drier summer, and
- G. Choose healthy specimens. Avoid plants with signs of disease. Rinse aquatic roots to remove foreign debris; and
- H. Avoid over compaction of soils – especially under pervious hardscapes; and
- I. Recycle or contain and properly dispose of concrete and other installation wastes; and
- J. Leave all water features alone for 24 hours to check for leaks; and
- K. Flush main line of irrigation systems before installing sprinkler heads. Calibrate all systems to appropriate IA standards and perform water audit to assure proper function; and
- L. Require training and all instructional or owners manuals for all components of all landscape related systems to assure you know what actions are required for maintenance.

#### IV. Maintenance

Assuming the correct plant was chosen and properly installed, maintenance practices have the highest potential for environmental impact. To limit impacts it is important to evaluate your site up front before requesting site maintenance assistance.

- A. IPM or IVM Plan – The contract should specify the following elements of the Integrated Pest Management or Integrated Vegetation Management Plan to be used onsite.
  - 1. Triggers– The property owner should include a specification about the level of plant harm that will be tolerated before action is expected
    - ”Weeds shall be controlled before they reach four (4) inches in height.”*
    - ”A yearly control program that does not allow weeds to go to seed is required.”*
    - ”The timing and application of the fertilizer shall be determined based upon soil analysis and general appearance of the lawn.”*
    - ”The mechanical clipping of all grass surfaces shall be performed in a timely manner so that no more than 2” of grass will grow between mowings”*
    - ”Mowing height shall be no less than 1 ½ and no more than 2” in turf areas, except for the Eco Lawn mowing in February. Mow grass per schedule described above and additionally as need to maintain the grass below a height of 2”.*

2. Monitoring - the contract should specify various level of monitoring visits. Request record of pest identification prior to approving any eradication activities.
3. Physical Treatment – require a description of what physical methods will be used – from mowing and weed whacking, to copper barriers and edging materials. Consider use of mechanical traps and weeding to keep unwanted pests and plants from your site. Ask for specific schedules or triggers for aerating or thatch removal for turf.

*”Sweeping, picking up, vacuuming or otherwise removing of litter, debris, leaves and/or garbage from landscaped areas”*

Specify the use of dry sweeping or vacuuming practices versus hosing off, power washing or blowing practices. Consider use of torch or boiling water for weed control.

4. Biological Treatment – Ask for use of mulch / compost, predatory insects, companion planting, and other biological control methods. Get fish in your water features (over 50 sq foot in size) to keep down mosquito larvae.
5. Chemical Application – state a preference for biological / natural based materials. Consider use of pyrethrin, natural hormone based chemical solutions Consider requiring mapping or treatment areas, notification and always require copies of MSDS sheets:

*”Chemical weed control is restricted / not allowed in certain areas, including bioswales, riparian areas, and ecolawn turf areas.”*

6. Irrigation – Specify the use of deep infrequent watering rather than short watering periods over multiple times in the same day (Exemption allowed for new plant installations). Be clear about your irrigation season and the number of seasonal adjustments desired. Also discuss winterizing of the system – including draining. Consider use of rain or soil moisture sensors, and **annual?** water audits.

a) Goal Statement:

*”Irrigation is provided at the site to maintain optimum soil moisture content, and to ensure healthy, vigorous growth.”*

b) Controller Adjustment

*”The contractor shall adjust the irrigation controller time clocks for maximum efficiency”.*

*”The contractor shall be responsible for properly coordinating the time clocks and adjusting the watering schedules to provide adequate water to maintain all planted areas in a thriving condition”.*

*”The systems shall be activated by May 15, and de-activated and properly winterized to preclude damage, by November 1<sup>st</sup>”*

- B. Equipment Operation – discuss times of use, desired type of equipment, etc.
1. Inclement Weather – avoid specific activities in adverse weather:
    - a) No mowing when wet
    - b) No spraying when windy (specify a mph)
    - c) Specify that contractor always carries additional erosion control materials with them.
  2. Clean Air Action Days – include a stipulation against running motorized equipment on these hot summer days.  
*”Contractor shall not use internal combustion engines on Clean Air Action Days – as designated by DEQ.”*
  3. Equipment Type – specify the use of manual or hand held, non-motorized, propane fueled or 4-stroke equipment which are less polluting.
  4. Equipment Maintenance – Specify refueling and cleaning equipment back on the contractor yard site or at a designated vegetated site on your property that does not directly drain to inlet.

- C. Materials Control – The contract should have specific language regarding the following issues:

1. Materials Disposal – no materials shall be flushed, washed or dumped on site:  
*”In no case shall contractor rinse or flush chemicals of any kind from equipment onto the owner’s landscaped sites unless the rinse results from chemical application to the same landscape site.”*  
*”In no case shall contractor rinse or flush chemicals of any kind from equipment into the storm drainage or sewer systems.”*  
*”Grass clippings shall be raked into the lawn evenly if a mulching mower is used.”*
2. Secondary Containment – contractor shall institute spill prevention, spill storage, and other measures to control unwanted releases. Specify that the contractor shall have a spill kit available during all onsite operations.
3. Recycling of Containers - especially empty fuel and potting containers.
4. Recycling of Green Waste – consider mulching, onsite or offsite composting requirements.

- V. Training / Communication –

- A. Require a contractor who is a CLT 0 by either OLCA or WALP. Specify an irrigation employee with some level of IA certification.
- B. Consider requiring owner and customer signage and notification steps:  
*”Caution signs shall be posted at all entryways prior to any use of chemicals, and remain until the chemical has dried, or regulations require. Signage shall be a minimum of 8 ½” X 11”, and of a bright color, securely posted.”*