Sustainable Lawn Management

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Pacific Landscape Management

Pacific Landscape Management

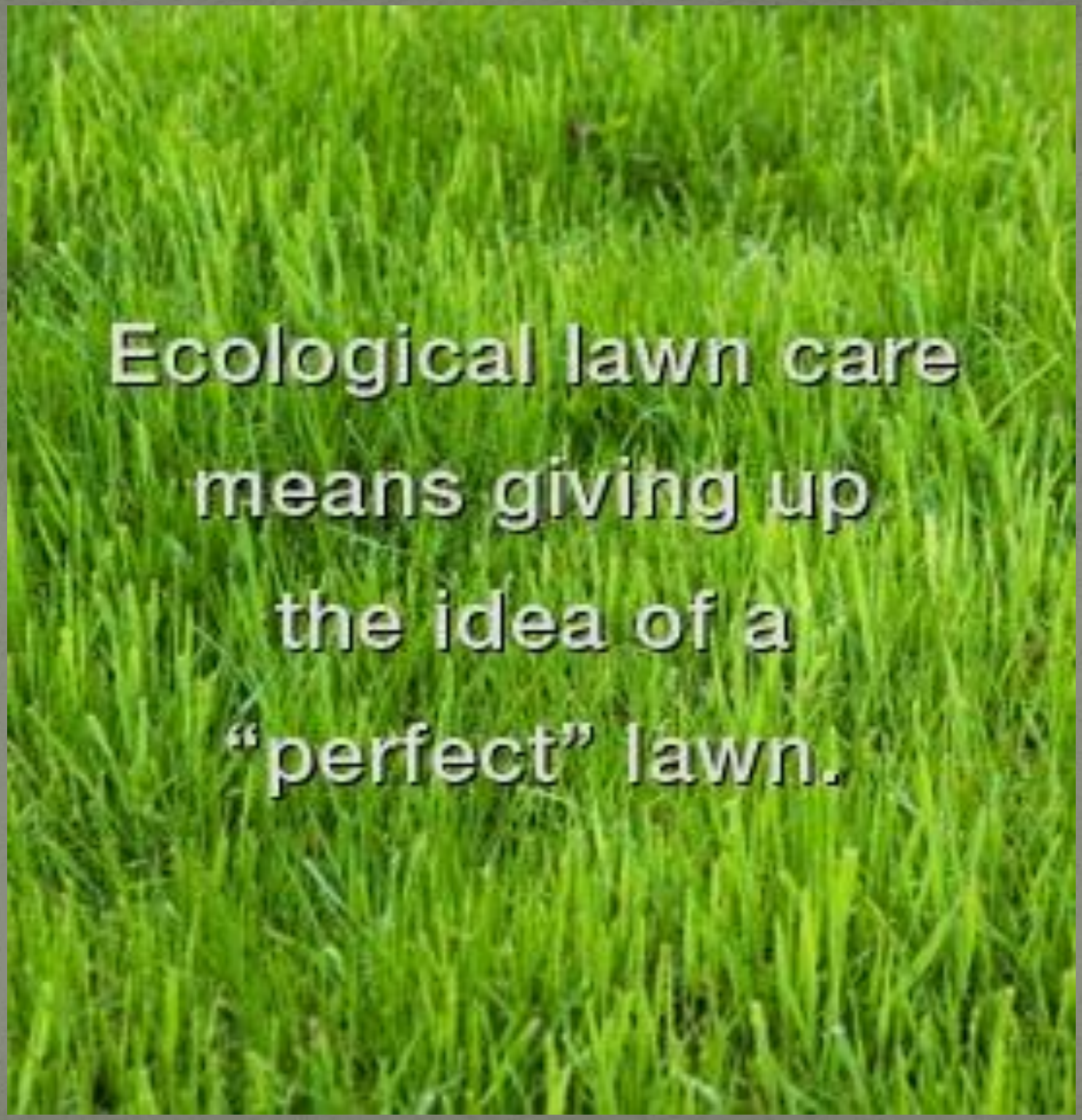
- Established in 1995
- Design, build, install and maintain
- Peak Season Numbers
  - 125 employees
  - 1 full time mechanic
  - 16 maintenance crews
  - 12 construction crews
  - 5 irrigation crews
    - 3 crews for maintenance
    - 2 crew for new construction

Maintenance

- Currently 220 clients from Olympia to Lake Stevens
- Over 2.5 million square feet of turf
- Two types of contracts, Traditional vs Sustainable
- Client Breakdown/% of overall turf
  - Commercial (business parks, shopping complexes, medical complexes)
    - 35/22%
  - Home Owners Association or Condo Associations
    - 74/35%
    - Two largest sites, both over 150,000 sqft of turf
  - Residential
    - 111/43% (and shrinking)

Traditional Lawn Care Contract

- Client Mindset
  - Just wants it maintained
  - Likes it green, weed free, and no worries
  - Lower end, just mow it!
    - No fertilization, irrigation, or weed control
- Expectations
  - Very High to Very Low
- Fertilizations
  - Sub to Tru-Green
  - Synthetic set at 5-6 applications per year
- Cost
  - Lower in overall cost, but more expensive in the long run.
- Realizations


Ecological lawn care
means giving up
the idea of a
“perfect” lawn.

Sustainable Lawn Care Contract

- Client Mindset
  - Safety for pets and kids
  - Environmental (proximity to bodies of water)
  - Less cost conscience, looking to upgrade
- Expectations – lower, but willing to pay more
- Fertilizations
  - Sub to Soil Science
  - 4 times a year
  - Increase nutrient availability, stimulates biological activity, increase root growth
- Extra services
  - Thatch, aerate, top-dress, over-seed, lime
- Cost
  - 25%-30% more expensive upfront, lowers over time in water use, no chemicals, etc
- Realizations

Month by month approach

CALENDAR OF RECOMMENDED LAWN MAINTENANCE PRACTICES*

*Bibliography – McDonald, David. ***Ecologically Sound Lawn Care for PNW***. Seattle, WA: SPU, 1999

Month	Minimal Care, Low Maintenance Lawns, or Non-irrigated Areas	Higher Maintenance Lawns, Regularly Irrigated	Additional Practices for High Wear Turf
Mar.	Correct drainage problems, or consider replacing poorly drained lawn areas with more wet tolerant plantings. Begin regular mowing.	Fertilize early March. Monitor for crane fly and red thread disease. Get a soil test every 2-3 years and apply lime if needed, could also apply in the fall.	Aerate regularly through season. Limit traffic on soggy soils. Identify and correct surface or sub-surface drainage problems.
Apr.	Mulch-mow and leave clippings on lawn. Mow at 2"-2 ½". Rake thin areas and overseed.	Aerate, overseed, topdress with compost in spring. If thatch thickness is greater than 1", dethatch.	Overseed thin or weedy areas with each aeration. Perennial ryegrass stands heavy wear best. Begin irrigation activation.
May	Pull (or spot spray) dandelions and other problem weeds to prevent spreading.	Fertilize mid to late May when growth slows. Remove weeds Apr.-June. Start mulch mowing.	Mulch mow as much as possible throughout the season. Aerate, topdress, overseed okay until mid-month on irrigated lawns. Sharpen mower blades, tune up equipment.
June	Mow regularly (weekly) until lawn goes brown or dormant. Limit wear on dormant lawns.	Mow high (2"-2 ½") and often; leave clippings. Make sure rain sensor on irrigation system works to help save water.	Check irrigation system at season start (as early as May), verify uniform coverage with limited runoff.
July	Water dormant lawns slowly and deeply once a month during dry season.	Water deeply and slowly, look for 1"-1 ½" every week depending on soil makeup (sandy soils need more frequent watering, clay soils less)	High traffic areas irrigated regularly. Aerate if use is heavy.
Aug.	Mow every two weeks on dormant lawns to limit dandelion spread.	Set timer to water before dawn to limit disease. Best if soil dries between waterings.	Monitor irrigation system for breaks, uniformity in coverage, and functionality.
Sept.	When rain comes, rake thin areas and overseed. Aerate if compacted. Pull (or spot spray) weeds.	Fertilize in early September.	Renovate early to mid fall depending on use (aerate, overseed, topdress). Sharpen mower blades, tune up equipment.
Oct.	For poor soils/poor lawns, topdress with compost (between Sept 1-mid Oct)	Renovate or replace lawns between Sept 1 and Oct 15. Aerate, overseed, topdress, lime (if needed).	If renovation is not planned, overseed to crowd out weed, dethatch if needed. Begin winterization of irrigation system.
Nov.	Fertilize with slow release fertilizers.	Fertilize with slow release fertilizers.	Continue aerating high traffic or sports fields.
Dec.	Rake leaves off lawn or mulch mow in. Mow down to 1 ½" on last mow of season.	Limit traffic on frozen grass or saturated soils.	Watch for birds feeding heavily in fall, might signify a need to monitor for crane fly in spring.
Jan. & Feb.	Sharpen mower blades, tune up equipment.	In warmer winters, begin cranefly monitoring.	Identify problematic areas needing to be addressed.

Winter

- December
  - Stay off frozen and highly saturated lawns
  - Mow as needed
  - Crane fly monitoring
- January-February
  - Mow as needed
  - Crane Fly Monitoring
  - Tune up equipment
  - Find and Correct drainage issues

Drainage

- Watch it go from bad to worse!

Spring

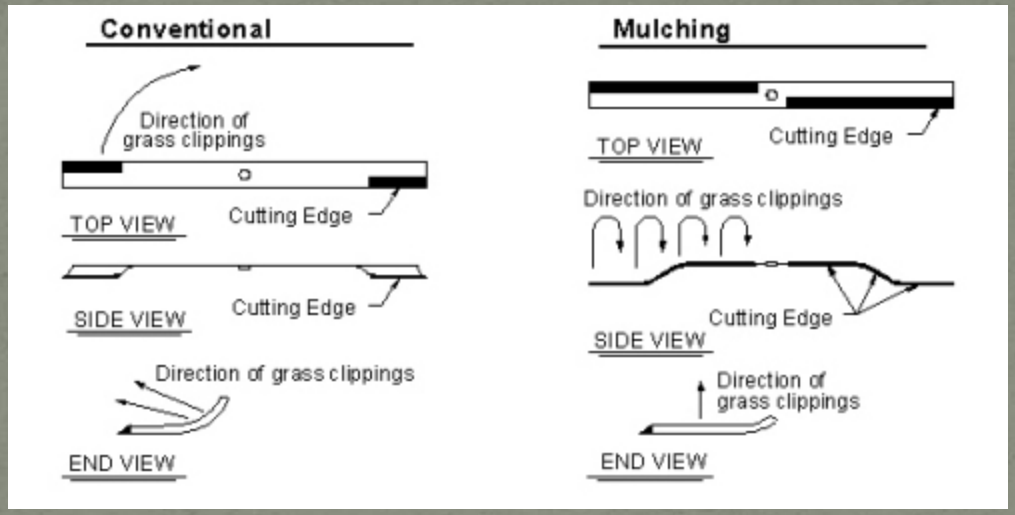
- March
  - Have drainage issues corrected
  - Fertilize – helps rid lawn of red thread
  - Aerate compacted lawns (sports fields, golf courses)
  - Monitor for crane fly
- April
  - Begin mulch mowing
  - Lawn Renovations
  - Irrigation
- May
  - Weed control (dandelions)
  - Mulch Mow
  - Sharpen blades
  - Tune up equipment

Mulch Mowing

- A hipster approach?

Mulch Mowing

- How does it work?



Mulch Mowing

- Conversion kit
- Customer perception
  - Messy in wet conditions
  - Clumps of grass in lawn
  - Pet safety
- Benefits
  - For company
    - Reduced disposal costs
    - Avoid having to empty bags of grass clippings
  - For turf and soil
    - Enhanced soil fertility – can provide ¼-1/2 your fertilization needs
    - Retains more soil moisture

Mulch Mowing – gone bad

Mow High

- But not too high!

Summer

- June
  - Mulch Mow – higher mowing is more beneficial
  - Irrigation
    - Sensors
    - Coverage
    - Water efficient nozzles
    - Breaks
    - Program
    - Water Audit
- July
  - Mulch mow
  - Irrigation
  - Aerate compacted areas
- August
  - Mulch Mow
  - Irrigation
  - Inventory your weeds (dandelions, clover, buttercup) and what they mean

Irrigation – cost savings

- MP Rotors –

- Solar Syncs -

Irrigation Case Study

- Sammamish Home Owners Association
- ~300,000 sqft of turf
- 2012 water usage – 940,000 gallons water used
- Spring 2013 irrigation enhancement (~$10,000 investment)
  - Did not change program
  - Two highest usage meters (2 out of 22)
    - 40% water saving on one with more turf
    - 60% water saving on another with more established planter beds
  - MP Rotor switch out on 2 meters
  - Reduced areas that didn't water
- 2013 water usage – 325,000
- 615,000 less gallon water used
- Savings of ~$7,150 on first year!!!

Fall

- September
  - Mulch Mow
  - Aerate, overseed, topdress
  - Fertilize
  - Sharpen Blades
  - Tune Up equipment
- October
  - Mulch mow if possible
  - Aerate, overseed, topdress (if not too wet)
  - Lime (if needed)
  - Winterization of irrigation
  - Budgets!!!
- November
  - Last mulch mow if possible
  - Fertilize

Sustainable Lawn Care Approach

- Emphasize Soil Activity and Biodiversity
- Perfect lawn and sustainability don't mix
- Have an established threshold for pest and weeds
- Mulch Mow regularly through growing season
- Irrigation efficiency and upgrades
- Turf Renovations
- Organic Fertilizers
- If using pesticides, use least toxic products

Questions?