

# NARRATIVE REPORT

## CITY OF DURANGO

### ORGANICALLY MANAGED PARKS ORDINANCE

#### Section 1: History

In 2008, a group of concerned citizens began encouraging the City of Durango to embark upon a program that would result in Durango’s parks being “chemical-free.” In response, Brookside Park was designated as Durango’s first “chemical-free” park. Additionally, in 2011 the City also designated Pioneer Park as “chemical-free.”

The City maintains the two “chemical-free” parks by applying organic fertilizer to the parks once a year. There are no synthetic chemicals or pesticides applied by the City to the “chemical-free” parks.

#### Section 2: Current Parks Maintenance Practices

According to the document titled City of Durango Herbicide and Pesticide Use, the City currently uses the following chemical herbicides and insecticides (collectively referred to as “pesticides” in this Report), and synthetic chemical fertilizers on City owned lands (with the exception of the two “chemical-free” parks):

Herbicides	Insecticides	Fertilizers
2,4-D Amine	Carbaryl	Green-It Turf
Confront	Merit	Howard Johnson’s Turf Fertilizer
Curtail	Permethrin	K Iron
Horsepower		K Lawn Fertilizer
Milestone		
Roundup		
Surge		
Telar XP		
Trimec 992		
Vessel		

### **Section 3: Chemical Dangers**

Scientific studies associate exposure to many of the above-listed pesticides with asthma, cancer, developmental and learning disabilities, nerve and immune system damage, liver or kidney damage, reproductive impairment, birth defects, and disruption of the endocrine system.

For instance, 2,4-D is one of the most common herbicides used by the City of Durango in all of its irrigated parks, playgrounds and sports fields, yet the World Health Organization's International Agency for Research on Cancer has classified 2,4-D as a possible human carcinogen. The use of 2,4-D has been banned in an increasing number of countries including Sweden, Denmark, Kuwait, Norway, and Canada. Long-term exposure to 2,4-D has been definitively linked to liver, kidney, endocrine and nervous system damage. Infants, children, pregnant women, the elderly, and people with compromised immune systems and chemical sensitivities are especially vulnerable to pesticide effects and exposure. Pesticides are also harmful to pets, wildlife, soil microbiology, plants, and natural ecosystems, including honeybees and other pollinators. Toxic runoff from chemical fertilizers such as 2,4-D and other pesticides pollute rivers, streams, lakes and Durango's drinking water sources.

### **Section 4: Why Organic Works**

Healthy, organically managed soils increase organic nutrients and soil microorganisms allowing grasses to out-compete other plant species over time, ultimately resulting in a natural reduction of weeds and pests.

In conventionally managed parks, the earthworm and microorganism populations are minimal to non-existent because of all the synthetic chemicals and herbicides applied regularly to the soils. When shifting to an organically managed system, it is best to use an approach that is similar to getting off drugs. The focus in the beginning is to support the transition with high amounts of organic fertilizers. In the process of re-building healthy soils, it is best to aerate manually, but over a few years, the worms come back and aerate the soil naturally. The grass roots grow stronger due to healthy soil that is teeming with living microorganisms. With minimal disturbance of the soils through the lack of applied synthetic chemicals and herbicides, weed control becomes minimal. Typically, the maintenance costs decrease by 25% after the first few years, due to water savings, reduced use of expensive synthetic chemicals and the reduced need for weeding.

The use of synthetic chemical fertilizers and pesticides is not necessary to create and maintain green lawns and landscapes given the availability of viable organic land management practices and products, and an increasing tolerance to accept a diversity of plants growing symbiotically with grasses.

### **Section 5: Durango's Current Chemical-Free Parks**

The use of both of Durango's current chemical-free Parks, Brookside Park and Pioneer Park, has increased in popularity since the parks have become chemical-free, particularly among families with small children. According to the City of Durango's Parks Master Plan, Brookside Park is in "excellent condition". The turf in both of the chemical-free Parks is a highly functional, beautiful green lawn and beckons to children of all ages for a pleasing roll about in the completely chemical-free grass.

### **Section 6: Organically Managed Parks Ordinance**

A citizen petitioner's committee has submitted a proposed Organically Managed Parks Ordinance under the citizen initiative petition provisions of Article VII of the Durango City Charter. The initiative petition process allows for the submission of a proposed ordinance by city residents to the City of Durango for adoption or vote.

The Petitioner's Committee submitted the required affidavit and proposed ordinance to the city clerk on June 1, 2011. The Petitioner's Committee obtained 935 signatures on the petitions of which the city clerk deemed at least 511 of the signatures as valid.

The City Council has scheduled public hearings on the proposed City of Durango Organically Managed Parks Ordinance for August 7, 2012 and August 21, 2012. If the City Council does not pass the Ordinance, the question of whether the Ordinance should be enacted will be placed upon the November 6, 2012 general election ballot.

The full text of the proposed Ordinance is attached to this Narrative Report. The Ordinance is summarized as follows:

*An ordinance mandating the implementation of an organic land management program for all city parks, open space, trails, lawns, playgrounds, sports fields, rights-of-way and other real property owned or leased by the City; using organic fertilizers and eliminating the use of synthetic fertilizers on City property; promoting tolerance of a diversity of plants growing symbiotically with the grasses; employing non-synthetic*

*chemical means for removal of weeds and pests; allowing the use of minimum risk pesticides after non-synthetic chemical means have been reasonably exhausted; resorting to higher risk pesticides only in the event of a public health emergency; designating an organic land management coordinator; and providing for the recovery of costs and attorneys fees by citizens who are wholly or partially successful in bringing a civil action to enforce any provision of the ordinance.*

## **Section 7: Questions and Answers (FAQ's)**

***Q: Will my private property be affected by the Ordinance?***

**A.** No. The proposed Ordinance only applies to lands owned or leased by the City of Durango and does not include any private property.

***Q: Is the Ordinance a pesticide ban?***

**A.** No. The Ordinance is not a pesticide ban. The Ordinance utilizes a 3-tiered approach to the control of pests upon city lands. Non-synthetic chemical means must initially be used to control pests. Once non-synthetic chemical means have been reasonably exhausted and further means of control are still required, the City may then utilize minimum risk pesticides as defined by the EPA<sup>1</sup>. If further means of control of pests are still necessary, and a public health emergency exists, the City may then use higher risk pesticides.

***Q: What about spraying for mosquitoes and noxious weeds?***

**A:** Under the organic land management program established by the proposed Ordinance, many common pests such as mosquitoes and noxious weeds may ultimately continue to be controlled under the public health emergency exemption of the Ordinance by utilization of the higher risk pesticides currently in use. On the other hand, plants such as dandelions and clovers, which are not considered public health risks, would be accepted with greater tolerance or be controlled by non-synthetic chemical means or by the use of minimum risk pesticides.

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<sup>1</sup> Minimum Risk Pesticides are pesticides that are exempt from federal registration by the Environmental Protection Agency under Section 25(b) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), copy of this list is attached to this Narrative Report.

***Q: What organic approaches have been successful for controlling noxious weeds and mosquitoes?***

**A:** There are a number of proven successful strategies that utilize organic approaches to controlling mosquitoes and noxious weeds.

Noxious weeds can be spot sprayed with boiling water or organic minimum risk pesticide products, for example, rather than spot spraying with Roundup or other higher risk pesticides.

Using mosquito traps, bat boxes and encouraging the natural predators such as dragonflies and bats can effectively control mosquitoes. In addition, minimum risk pesticides can be effectively used to reduce mosquito populations. James Ranch successfully manages mosquitoes on their 600-acre parcel of private land organically with mosquito traps. The current pesticide fogging practices of the City are compromising to the mosquito's natural predators and lethal to all insects, including honeybees. Permethrin kills dragonflies, tadpoles, frogs, and toads, all natural predators of mosquitoes and lowers the numbers of bats that feed on mosquitoes because of a lack of food supply.

***Q. Are there successful, organically managed golf courses?***

**A.** Yes, there are over twenty beautiful and well-maintained organic golf courses in the country. The management practices focus on increased organic fertilizer and over-seeding in the beginning. Over time the organically managed golf courses experience consistently lower water bills and reduced weed problems because of the overall soil vitality and grass health. The grass continues to thrive as the soil nutrients and microorganism increase.

A few examples of organically managed golf courses are:

- Breckenridge Golf Club, Colorado
- Wawona Golf Course, Yosemite, California
- Old Broadway Golf Course Lake Tahoe, California
- Vineyard Golf Club, Martha's Vineyard, Massachusetts
- Tierra Verde, Arlington, Texas

***Q. How will Organic Land Management affect our Sports Fields?***

**A.** Ridgway and Carbondale are two great local examples of how ball fields stand up to the test of organic management. Both cities maintain all their parks through organic practices including their high impact ball fields. With proper organic fertilization, reseeding and systemized watering and mowing, the turf can withstand the heavy use from sports and other games exceptionally well. With proper organic fertilization, the soil health increases dramatically with microorganism activity that supports the grass roots to easily outcompete the weeds. Overseeding and generous amounts of organic fertilizer are key elements of the organic management program. Systematic watering and mowing will continue to maintain the ball fields in excellent condition for all active high impact sports.

***Q: Do other cities employ organic land management practices?***

**A:** There are many cities in Colorado and hundreds of communities across the nation and the world that have adopted the organically managed parks and open space lands approach. A few of these cities and towns include:

- Boulder, Colorado
- Carbondale, Colorado
- Ridgway, Colorado
- Portland, Oregon
- Ashland, Oregon
- Brunswick, Ohio
- Dallas, Texas
- Harvard University, Cambridge, Massachusetts
- Marblehead, Massachusetts
- Davis University, Davis, California
- New York City, New York
- Chicago, Illinois
- San Francisco, California
- Fairfax, California
- Santa Fe, New Mexico
- 36 cities in New Jersey

***Q: Does an organically managed approach cost more?***

**A:** No. Reports from other cities show that the organically managed parks cost significantly less than conventional methods. Attached is a report and accompanying article regarding the cost of an organically managed program compared to a conventional chemical program.

The attached report demonstrates conclusively that an organically managed program is cheaper than a conventional chemical program and that is not necessary to choose between the health of the citizenry of Durango and increased maintenance costs.

The referenced 2010 report, [A Cost Comparison of Conventional \(Chemical\) Turf Management and Natural \(Organic\) Turf Management for School Athletic Fields](#), prepared by Grassroots Environmental Education, a non-profit organization, demonstrates that once established, a natural turf management program can result in savings of greater than 25% compared to a conventional turf management program.

As noted at page 4 of the report, one of the most critical factors related to cost savings is the restoration of healthy soil microbiology that has been destroyed or severely compromised by years of chemical applications. Once organic matter has reached optimum levels in soils managed under an organic program, fertilizer costs are significantly reduced.

As further noted at page 4 of the report, water usage is significantly reduced by the implementation of an organic program due to deep root growth and moisture retention by healthy organic matter within the organically managed soils.

Costs for the natural, organically managed program are slightly higher in the first two years of the study detailed by the comparative report, and then drop significantly in years three and beyond.

Also attached is an article titled, [Organic Turf Programs Cost Less than Chemical Programs, Report Shows](#). This article provides additional commentary regarding the above-referenced report.

***Q: Do any large buildings/facilities in Durango manage their property organically?***

**A:** Yes. The Smiley Building is an excellent example of organically managed irrigated turf in Durango. The owners of the Smiley use only organic fertilizer and nothing else on the Smiley lawns, which are beautiful and a true showplace for Durango.

## **Conclusion**

The City of Durango Organically Managed Parks Ordinance would make all of the parks and open space in Durango safer and healthier for all citizens of Durango to enjoy. The Ordinance would also reduce operating costs for the City of Durango. The Ordinance emphasizes teaching tolerance to accept a diversity of plants growing symbiotically with the grasses. The Ordinance would greatly reduce the use of higher risk, toxic herbicides and pesticides by using only non-synthetic chemical means and minimum risk pesticides to control common, harmless plants such as dandelions and clovers. The Ordinance may still ultimately allow for the use of the higher risk pesticides on a limited basis for the control of certain more serious pests such as mosquitoes and noxious weeds under the public health emergency exemption of the Ordinance.