



CITY COUNCIL
Staff Report

Meeting Date Dec. 5, 2017
To: Mayor and City Council

From: Kevin Crawford, City Manager
Staff Contact: Kyle Lancaster, Parks Services Manager
kyle.lancaster@carlsbadca.gov or 760-434-2941

Subject Receive a staff report on Integrated Pest Management, consider available options on city owned or operated properties and rights of way, and adopt a Resolution providing direction to staff as appropriate.

Recommended Action

Receive a staff report on Integrated Pest Management, consider available options on city owned or operated properties and rights of way, and adopt a Resolution providing direction to staff as appropriate.

Executive Summary

Historically, the creation, establishment, and maintenance of city owned properties and rights of way has included the application of selective pesticides, in accordance with the relevant local, state and federal regulations and applicable permits. As a standard practice, the selection and application of these pesticides, by both staff and contractors, are to be performed according to the city's Integrated Pest Management (IPM) Plan. The general purpose of an IPM Plan is to direct health conscious and environmentally sensitive pest management strategies. These strategies are consistent with the Carlsbad Community Vision core values of Sustainability, and Open Space and the Natural Environment.

Specific to the city's ongoing operations, its IPM Plan (also referred to as its IPM Guidelines) was last updated on Dec. 16, 2003 (Exhibit 2). As a result of staff's routine monitoring of industry changes in regulations and best management practices, and of concerns expressed by several citizens regarding the application of certain chemical pesticides on city owned or operated properties and public rights of way, staff drafted an update to the city's IPM Plan for City Council review (Exhibit 2). This report provides highlights of the update to the IPM Plan, and a set of options available for the City Council's consideration and direction to staff.

Discussion

The Parks & Recreation Department is currently responsible for the maintenance of approximately 183 acres of community parks and school athletic fields; 139 acres of passive parks and facilities landscapes; 90 acres of streetscapes, medians, and parkways; 137 acres of undeveloped park sites, urban forests, trailheads/planters; 594 acres of open space preserves; 19,000 trees; an 18-hole golf course, and 47 miles of trails. The Public Works Department is

currently responsible for the creation, establishment, and maintenance of approximately 11 acres of habitat mitigation sites; the maintenance of 15 acres of vegetation control and 3 acres of vegetation monitoring; and the maintenance of 58 various buildings.

Historically, the creation, establishment, and maintenance of these sites has included the application of selective pesticides, in accordance with the relevant local, state and federal regulations and applicable permits. As defined in California Food and Agriculture Code Section 12753, "Pesticide" includes any of the following: (a) any spray adjuvant; (b) any substance, or mixture of substances which is intended to be used for defoliating plants, regulating plant growth or for preventing, destroying, repelling or mitigating any pest...which may infest or be detrimental to vegetation, man, animals, or households, or be present in any agricultural or nonagricultural environment whatsoever. By this definition, the term pesticides includes organic products and chemical products. Insecticides, herbicides, fungicides and rodenticides are all considered pesticides.

As a standard practice, the selection and application of these pesticides, by both staff and contractors, are to be performed according to an IPM Plan. The general purpose of an IPM Plan is to direct health conscious and environmentally sensitive pest management strategies. These strategies are consistent with the Carlsbad Community Vision core values of Sustainability, and Open Space and the Natural Environment.

Specific to the city's ongoing operations, its IPM Plan (also referred to as its IPM Guidelines) was last updated on Dec. 16, 2003. As a result of staff's routine monitoring of industry changes in regulations and best management practices, and of concerns expressed by several citizens regarding the application of certain chemical pesticides on city owned or operated properties and public rights of way, staff drafted an update to the city's IPM Plan for City Council review.

Under the update to the IPM Plan, staff and contractors would focus on the prevention and suppression of pest issues with the least impact on human health, the environment, and non-target organisms. IPM typically uses a variety of pest control tactics in a compatible manner. A combination of several control tactics is usually more effective in minimizing pest damage than any single control method. The type of control(s) selected will likely vary on a case-by-case basis due to differing site conditions.

The primary pest control tactics to choose from include:

- Cultural
- Mechanical
- Environmental/Physical
- Biological
- Pesticide

Each of these pest control tactics is detailed in the update to the IPM Plan.

Per the update to the IPM plan, pesticide controls may be used when other methods fail to provide adequate control of pests and before pest populations cause unacceptable damage. When pesticides are to be used, considerations should be given for how/when to apply them the most effectively and sparingly.

Pesticides that are broad-spectrum and persistent are to be avoided, since they can cause more environmental damage and increase the likelihood of pesticide resistance. The overuse of pesticides can cause beneficial organisms to be killed and pest resistance to develop. In addition, considerations should be given to the proximity to water bodies, irrigation schedules, weather, etc., that may result in the pesticide being moved off-site, into the environment.

The following topics on pesticide controls are further addressed in the update to the IPM Plan:

- Criteria for Selecting Treatment Strategies
- Selection of Appropriate Pesticides
- Prioritized Use of Pesticides
- Certification and Permitting
- Employee Training
- Record Keeping
- Materials for Use – Least Toxic Pesticides
- Notification Signs

The use of chemical pesticides on city owned or operated properties and public rights of way would be significantly reduced, based on the guiding principles of the update to the IPM Plan:

1. Emphasize the initial use of organic pesticides.
2. Limit the use of chemical pesticides where the general public congregates.
3. Use EPA Toxicity Category pesticides in a targeted manner by a certified pest control applicator, and only if deemed necessary by supervisory staff - to protect public safety; to prevent threats to sensitive species or native habitats; to assist in meeting regulatory compliance requirements; or to prevent economic loss - when pests cannot be managed by other tactics.

The majority of the recent concerns expressed by citizens regarding the application of certain chemical pesticides have pertained to school sites, parks and similar recreational areas. The Parks & Recreation Department maintains and operates portions of 10 school sites in the city, under Joint Use Agreements with three school districts. As an informal pilot program, over the last 15 months, staff directed the contractor maintaining the sites to forego the use of chemical pesticides. Only non-chemical pest control tactics were used on these sites during this period.

The effectiveness of these tactics has been modest. In particular, a greater number of weeds and burrowing rodents has been evident on the school sites. These conditions had a moderately negative effect on the aesthetics of the school sites' landscapes, and in particular, on the playability of the athletic fields. To date, however, the number of complaints received by staff on the landscape and field conditions at these school sites has been relatively low. The increased maintenance costs for this 15 month program have been approximately \$10,000.

Options

The options available to the City Council regarding integrated pest management on city owned or operated properties include the following:

Option 1: Expand IPM Pilot Program – Specific Sites with Immediate Implementation

This option would expand the referenced pilot program, under the provisions of the update to the IPM Plan, to include parks, community centers and libraries - for a period of one year. The city would maintain current practices/operations (related to IPM) on the balance of city owned or operated properties and public rights of way.

The initial expenses related to the immediate expansion of the pilot program would be absorbed within the existing FY 2017-18 and pending FY2018-19 operating budgets. Staff would return to City Council at the end of the one year period with a report analyzing the results, impacts and costs associated with the program.

- Pros: Allows for review of benefits, impacts and costs of the pilot program on a greater number of sites, before considering adoption of the update to the IPM Plan. Limits costs until additional data/information is obtained.
- Cons: Impacts aesthetics/playability of high touch sites.
- Estimated Costs: Second half of FY 2017-18 - \$250,000 for Parks & Recreation; \$75,000 for Public Works. First half of FY 2018-19 - \$250,000 for Parks & Recreation; \$75,000 for Public Works.

Option 2

Option 2a - Adopt Update to the IPM Plan - Specific Sites with Phased Implementation

This option recommends adoption of the update to the IPM Plan with a phased implementation over the balance of FY 2017-18 - on school sites, parks, community centers and libraries. The City would absorb initial expenses related to the phased implementation within the existing FY 2017-18 operating budgets and prepare enhancement requests for the FY 2018-19 operating budgets to be included with the Citywide Budget submittal. The city would also maintain current practices/operations (related to IPM) on the balance of city owned or operated properties and public rights of way.

- Pros: Reduces use of chemical pesticides on high-touch sites in a phased manner.
- Cons: Impacts aesthetics/playability of high-touch sites. Increases costs.
- Estimated Costs: Second half of FY 2017-18 - \$200,000 for Parks & Recreation; \$50,000 for Public Works. Annually as of FY 2018-19 - \$500,000 for Parks & Recreation and \$150,000 for Public Works.

Option 2b: Adopt Update to the IPM Plan - Specific Sites with Immediate Implementation

This option is similar to Option 2a above, with the exception of immediate implementation.

- Pros: Reduces use of chemical pesticides on high-touch sites immediately.

- Cons: Impacts aesthetics/playability of high-touch sites. Increases costs.
- Estimated Costs: Second half of FY 2017-18 - \$250,000 for Parks & Recreation; \$75,000 for Public Works. Annually as of FY 2018-19 - \$500,000 for Parks & Recreation and \$150,000 for Public Works.

Option 3

Option 3a: Adopt Update to the IPM Plan – All Sites with Phased Implementation

This option recommends adoption of the update to the IPM Plan with a phased implementation on all city owned or operated public properties and rights of way. The city would absorb initial expenses related to the phased implementation within the existing FY 2017-18 operating budgets and prepare enhancement requests for the FY 2018-19 operating budgets to be included with the Citywide Budget submittal.

- Pros: Reduces the use of chemical pesticides on all sites in a phased manner.
- Cons: Impacts aesthetics/playability of all sites. Increases costs.
- Estimated Costs: Second half of FY 2017-18 - \$300,000 for Parks & Recreation; \$90,000 for Public Works. Annually as of FY 2018-19 - \$750,000 for Parks & Recreation and \$225,000 for Public Works.

Option 3b: Adopt Update to the IPM Plan – All Sites with Immediate Implementation

This option is similar to Option 3a above, with the exception of immediate implementation.

- Pros: Reduces the use of chemical pesticides on all sites immediately.
- Cons: Impacts aesthetics/playability of all sites. Increases costs.
- Estimated Costs: Second half of FY 2017-18 - \$375,000 for Parks & Recreation; \$112,500 for Public Works. Annually as of FY 2018-19 - \$750,000 for Parks & Recreation and \$225,000 for Public Works.

Option 4: Suspend IPM Pilot Program and Halt Efforts to Update the IPM Plan - All Sites

This option would suspend the referenced pilot program on school sites, and halt further efforts to update the IPM Plan. The city would absorb expenses related to the pilot program, and the refurbishment of the school sites, within the existing FY 2017-18 operating budget and continue current practices/operations (related to IPM) on all city owned or operated properties and public rights of way.

- Pros: Returns or retains present aesthetics/playability of all sites. Limits costs.
- Cons: Resumes or continues historical use of chemical pesticides on all sites.
- Estimated Costs: FY 2017-18 - \$50,000 for Parks & Recreation.

The above options were developed to identify potential IPM benefits, impacts and costs on city owned or operated properties and rights of way. The actual IPM benefits, impacts and costs are unknown at this time, and will not be known until after one of the options is implemented.

Fiscal Analysis

There is no direct fiscal impact associated with the receipt of this report on IPM. Potential fiscal impacts will vary substantially, dependent upon City Council's direction to staff.

The exact fiscal impact for full the implementation of the update to the IPM Plan is unknown, but preliminary estimates indicate the increased annual expenditures may exceed \$750,000 for the Parks & Recreation Department and \$225,000 for the Public Works Department. Several of the pest control tactics noted - aside from pesticides - carry substantial costs for materials, equipment, and/or labor costs. In addition, organic pesticides are typically more expensive, and require greater quantities per dilution and a higher frequency of application - than chemical pesticides. These higher frequencies of application in turn require additional labor and equipment to perform the associated work. Many of the costs will not be established until it is determined which of the pest control tactics are most effective.

Although there would be an internal cost to any implementation of the update to the IPM Plan, the majority of the increased annual expenditures would be expected from the rise in cost of services of the various maintenance contractors under agreements with the Parks & Recreation Department and Public Works Department. Generally, higher costs of contractual maintenance services such as these can be addressed via amendments to the existing services agreements, within the authority of the City Manager - as designated by the Carlsbad Municipal Code.

Next Steps

Potential next steps will vary substantially, dependent upon City Council's direction to staff. It is staff's intent to ultimately maintain city owned or operated properties and rights of way at a very high quality standard, similar to that which the community and visitors presently expect.

Environmental Evaluation (CEQA)

The project is exempt from the California Environmental Quality Act (CEQA) per State CEQA Guidelines Section 15308 – actions by regulatory agencies for protection of the environment.

Public Notification

This item was noticed in accordance with the Ralph M. Brown Act and was available for public viewing and review at least 72 hours prior to the scheduled meeting date.

Exhibits

1. Resolution providing direction to staff for Integrated Pest Management on city owned or operated properties and rights of way
2. City of Carlsbad, Public Works/Parks IPM Guidelines, dated Dec. 16, 2003
3. City of Carlsbad, Parks & Recreation/Public Works Draft IPM Plan, dated Nov. 30, 2017