

City of Brisbane

Agenda Report

TO: Honorable Mayor and City Council

FROM: Open Space and Ecology Committee, via Clay Holstine, City Manager

DATE: Meeting of November 9, 2009

SUBJECT: Consider approval of Open Space and Ecology Committee's recommendation for the 7th year vegetation management program for invasive species control in the Brisbane Acres.

CITY COUNCIL GOALS:

- 7. To develop plans and pursue opportunities to enhance Open Space.
- 8. To develop plans and pursue opportunities to protect natural resources.
- 15. To encourage community involvement and participation.

PURPOSE: To propose a vegetation management program to implement General Plan Policy 82: "...restoration of open space to retain existing biotic communities, including rare and endangered species habitat."

RECOMMENDATION:

Approve the proposed vegetation management plan and direct staff to implement the seventh year program.

BACKGROUND:

Over the past eleven years, the City of Brisbane has acquired 41 parcels in the Brisbane Acres totaling approximately 48 acres to preserve as open space. This property is within the boundaries of the Habitat Conservation Plan (HCP), and is considered actual or potential habitat for two endangered butterflies, the Mission blue and the Callippe silverspot. However, the habitat value of this land is threatened in some areas by the encroachment of exotic, invasive species. Primary problem species include French broom, eucalyptus, and fennel, scabiosa, oxalis and ivy, among others. These plants out-compete the native vegetation, degrade the landscape, and increase the risks of wildfires.

In September 2003, the City Council approved the Open Space and Ecology Committee's first vegetation management plan for invasive species control on City owned open space in the Brisbane Acres. Since then, the Council has approved a budget of approximately \$20,000 per year from the Open Space Fund for this program.

DISCUSSION:

The main priorities for the Open Space and Ecology Committee's proposed Year 7 vegetation management plan are to conduct invasive plant control follow-up work on all previously treated parcels, expand vegetation mapping and invasives control work to new areas, remove select non-native trees, and offer a community stewardship workday to engage volunteers in hands-on restoration work.

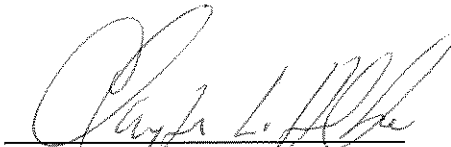
The attached seventh year vegetation management plan will cover the work that has been accomplished between 2003-2008, and the proposed plan for 2009-10.

FISCAL IMPACT/FINANCING ISSUES:

The FY 2009-10 budget appropriates \$22,580 from the Open Space Fund to be allocated for the vegetation management program for City owned open space in the Brisbane Acres. The estimated cost of the proposed plan is approximately \$17,500. The remainder of the funds, approximately \$5000 would be held over to be applied toward a larger invasive plant control project next year.



Department Head



City Manager

ATTACHMENTS:

7th Year Vegetation Management Plan

Open Space and Ecology Committee 7th Year Vegetation Management Plan 2009-10

For the past six years, the City Council has approved the Open Space and Ecology Committee's recommended vegetation management plan to control the encroachment of invasive plants on City-owned open space property in the Brisbane Acres. The goals of the plan are to:

- protect and restore native habitat by removing invasive plants;
- preserve endangered butterflies by protecting the habitat of which they are a part;
- lower the danger of wildfires at the urban/wildland interface by reducing fuel loads;
- foster community awareness and stewardship of City-owned open space.

The 2003-2008 vegetation management activities have consisted of four main components: eucalyptus tree removal, invasive plant control work, vegetation mapping, and an annual volunteer stewardship workday.

The phased removal of eucalyptus trees on City owned "lots" 77, 78, and 82 has preserved the oak woodland habitat and reduced fire fuel loads in the area. This multi-year effort was completed last year, although follow-up monitoring and treatment of resprouts and any new growth will be necessary for several years.

Significant progress has also been made over the last six years in controlling other invasive plants, including French broom, fennel, oxalis, ivy, and cotoneaster. Restoration contractors have been retained to help control invasive outliers on relatively pristine parcels, as well as to tackle larger infestations of exotics.

Vegetation mapping has been a valuable tool for documenting the condition of the City's open space acquisitions, setting priorities, and evaluating management efforts. Beginning in 2005, native and exotic species in the area around the City's main water tank, the eucalyptus site, and the parcels above Harold Road have been mapped in GIS format. To date, parcels 30, 37-39, 51-57, 61-63, 68, 75A, 76, 77, 78, 94, 97, and 100 have been mapped.

The annual stewardship event, Habitat Restoration Day, has taken place near the City's main water tank on "lots" 62, 63, and 68 in April of 2004, 2005, and 2006. In 2007, the restoration workday took place along Old Quarry Road where volunteers worked clearing non native plants near the park entrance and on the hillside above it. The community workday returned to the water tank site in spring 2008. In 2009, restoration day took place for the first time in Firth Canyon. The restoration event has engaged the participation of between 40 to 140 volunteers each year.

Year 7 Vegetation Management: 2009-10

The proposed 2009-10 vegetation management program for invasive species control builds on all prior years' efforts. The main elements of the Year 7 vegetation management plan are:

- Follow-up and new invasive plant control
- Expanded vegetation mapping
- Removal of select non-native trees
- Community restoration workday

Invasive Plant Control

The Open Space and Ecology Committee recommends that the City contract with Shelterbelt Builders to return to all previously treated sites. The scope of work would include removing new outliers and re-growth of exotics, tackling expanded areas of invasive plants, treating plants that were missed in prior years, and controlling invasive species that were not targeted in past efforts. Follow up work will take place on lots 62, 63, and 68 near the water tank, lots 30, 38, and 50 above Harold Road, in the eucalyptus area on lots 78 and 82 above Paul Ave, as well as parcels 75A, 76, 77, 94, and 97.

In addition to the dominant invasive plants on San Bruno Mountain such as broom and fennel, several nascent populations of other exotics plants have the potential of encroaching further and transforming native plant communities. The Open Space and Ecology Committee recommends focusing increased attention on oxalis and scabiosa control.

Vegetation Mapping

In spring 2009, Shelterbelt Builders mapped invasive plants on five parcels, and treated them at the same time, in order to maximize the effectiveness of the program given the constrained budget. Attached are the three new Brisbane Acres invasive species maps, depicting exotics found on lots 75, 76, 77, 94, and 97.

Invasive plant infestations on twenty-two City-owned open space parcels have been mapped thusfar. There are eighteen parcels in the Brisbane Acres that have not yet been surveyed. The recommendation would be to contract with Shelterbelt to survey, treat and map lots 43, 44, 45, 46, 49 and 50 in 2009-10, and continue this effort annually until all of the City-owned parcels in the Acres has been mapped. Invasive plants on these parcels would be mapped and treated at the same time, similar to last year's approach.

A proposal from Shelterbelt Builders to conduct all invasives control work, and to map and treat the six parcels listed above totals approximately \$9500.

Tree removal

While some of the eucalyptus trees on the City's open space parcels have been removed, there remain many exotic trees growing on City land in the Brisbane Acres. Near the main water tank on lot 94, there are about fifteen eucalyptus and pine trees. (Photos of the trees

on lot 94 are attached.) The Open Space and Ecology recommends cutting these pine and eucalyptus trees to help restore the native landscape of San Bruno Mountain. The estimate for cutting all trees in this area, lopping the branches and scattering the wood on site is approximately \$6000.

Habitat Restoration Day

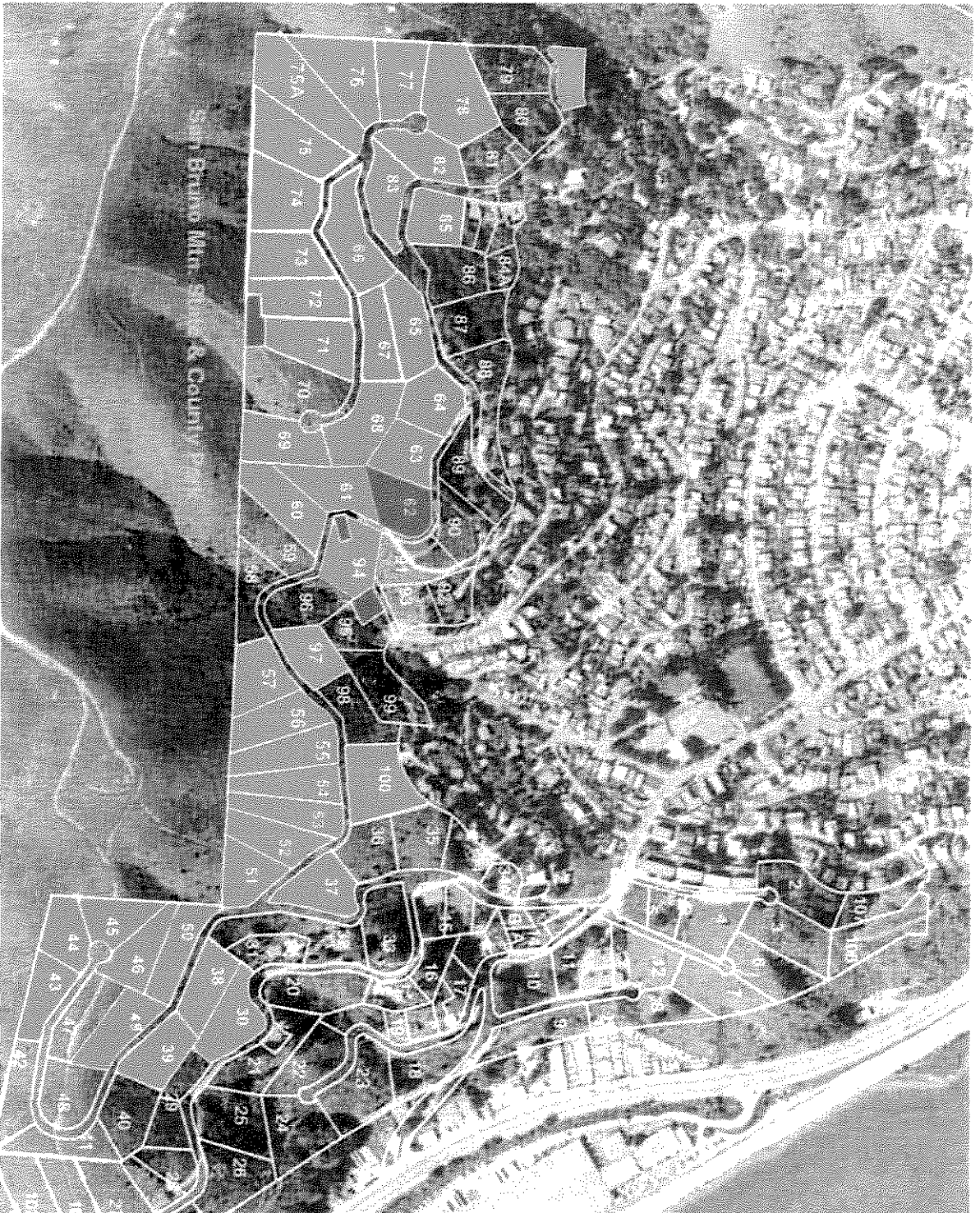
The annual volunteer Habitat Restoration Day is slated for Spring 2010. The Open Space and Ecology Committee plans to work again with PB&R to co-sponsor this event. The location for the stewardship workday will be selected by a joint OSEC-PB&R Subcommittee. After several years of volunteer workdays in the area near the City's main water tank, there is no longer sufficient French broom to warrant holding the event at that location. Given the success of last year's workday at Firth Canyon, the stewardship workday may take place at another Brisbane canyon that has significant infestations of invasive non-native vegetation. The cost for such an event would be approximately \$2000.

To further leverage limited resources, Brisbane is will continue to work with Mountain Watch. Mountain Watch has built upon the City's efforts by establishing a regular volunteer work session in the Brisbane Acres on the first Saturday of every month. In cooperation with the Open Space and Ecology Committee and City staff, volunteers work on controlling infestations of broom and other weeds on City-owned open space in the Brisbane Acres.



The Committee and staff will evaluate the vegetation management program each year and recommend adjustments as needed to best protect Brisbane's open space. While complete eradication of all invasive exotics is not possible, the encroachment of some of the most problematic exotics can be halted and their presence reduced dramatically. This reduction is an important contribution to preserving endangered butterfly habitat. With sustained effort, the City can help restore healthy ecological communities, enhance the habitat value of its open space parcels, and reduce potential fire hazards in the Brisbane Acres.

ATTACHMENTS:

Map depicting City owned parcels in the Brisbane Acres



**City of Brisbane
Brisbane Acres**

-  Open Space Parcels
-  Water Dept. Parcels



Note: location of parcels on aerial photo is approximate