



Protecting Marin Since 1934

September 27, 2017

Paul Jensen, Community Development Director
City of San Rafael
1400 Fifth Avenue
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[email: Paul.Jensen@cityofsanrafael.org]

Dear Paul,

Thank you for informing Marin Conservation League (MCL) of San Rafael's authorization of additional work to clear invasive plants from the Canalways site, and your observation of the result of the vegetation management effort in 2014.

We cannot agree with the statement that "for two years that followed [the goat grazing], the Canalways site was nearly free of dense vegetation and homeless camps." Eva Buxton, a professional botanist and member of MCL's Invasives subcommittee, followed the regrowth of the Jubata/Pampas grasses for 18 months after goat-grazing stopped and found that the foliage had fully recovered after about six months and plants were in full bloom after 14 months (see attached photos 1 and 2).

Since Jubata grass (*Cortaderia jubata*) and Pampas grass (*C. selloana*) are members of the Grass Family, growth takes place at the base of the leaves. As goats only eat the upper part of the leaf blades - and only to a height of 4-5 feet - they only temporarily reduce biomass (see attached photo 3). In fact, grazing and later cutting of the leaves (see attached photo 4) appeared to stimulate new growth and the foliage became lusher than before. Eva has a PowerPoint presentation, which she is willing to share, should the City be interested in the information she gathered.

Our subcommittee concluded that goat grazing is not an effective method to manage Jubata/Pampas grass, and that the two objectives of the 2014 grazing program - reducing fire danger and eliminating homeless encampments - were not met for a meaningful length of time.

MCL is encouraged to learn that the City and property owner are trying a new approach using a flail mower for removal, however we strongly encourage the City and property owner to take an approach which will address the issues at the Canalways site for the **long term**, using techniques widely followed in the environmental restoration community, and not simply continue a succession of short-term actions which require constant repetition—and funding. Please see important specific recommendations by botanist Eva Buxton for long term eradication attached.

MCL believes the City's experience at this site highlights the need for an effective invasive plant ordinance, as proposed in the City's current general plan. We strongly urge the City to consider

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adopting such an ordinance in its 2040 General Plan. We would be pleased to discuss further with you.

We support the City's effort to follow integrated pest management (IPM) best management practices and environmental restoration techniques at the Canalways site. We appreciate the opportunity to provide comment.

Sincerely,

Kate Powers
President

Eva Buxton
Botanist

Eva Buxton's Recommendations and References

Removing above ground plant material to the soil surface with a flail mower, as suggested by the City, is appropriate, but because it will not remove the root-crown/mass, where new growth occurs, it is important to do follow-up work. (The task can also be done using a chainsaw.)

At least three methods, or a combination of the three should be considered:

- (1) applying an herbicide containing Glyphosate (appropriate for the area) to the cut "stumps" and new growth (The Weed Worker's Handbook, A Guide to Techniques for Removing Bay Area Invasive Plants, CalIPC [California Invasive Plant Council, 2004]);
- (2) manually hacking out the root crown with a handpick, Pulaski, or mattock;
- (3) covering the root crowns with heavy black plastic to prevent photosynthesis, which will eventually kill the plants.

In order to receive lasting results, the total removal of the very large plants, such as those at the Canalways site, is essential. Plants can be pulled out with a truck with a hitch, as the area supporting the plants is accessible to a large truck. CalIPC recommends: "Place a choker cable around the plant, digging it into the ground a little behind the plant so it won't slip off. Secure the cable to the truck hitch, and pull the plant out easily." (The Weed Worker's Handbook)

We do not recommend removal of the blackberry and the fennel, as neither species is especially flammable or contribute to shelter for the homeless. In fact, at least the blackberry may be a deterrent because of its sharp prickles. In addition, there is no desirable plant that will naturally replace the two plants on the Canalways property. Another tall, perennial, flammable grass – Harding grass (*Phalaris aquatica*) – covers a large portion of the site. Depending on the closeness to structures, the owner of the property may want to prevent it from spreading by mowing it in late spring or before the seeds are released in late spring-early summer.