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Citizen Participation

1

Publicity

2

Requesting Inspections

2

Inspections

3

Notifications of Infestation

4

Database/record keeping

4

Permit/Reimbursement Process

5

Fire fuel reduction program

5

Enforcement

6

Contractors

7

Landfill

7

2012 Mountain Pine Beetle Tree Removal Project

What Worked and What Might Make It Work Better

Citizen Participation

Citizen participation in this program was outstanding. We received very positive responses from the majority of people involved. Inspection crews received thanks from many people and said that often people were interested in education about the beetle. Office personnel also report positive response and cooperation from citizens.

All of the property inspected this year was upon owner request. Maps showing the area inspected demonstrate that citizen participation was excellent. This was crucial to having a successful program. We covered much of the city's forested areas, and can therefore get an idea of the general level of infestation. Even if there are some infested trees in uninspected areas, I believe the vast majority of infested trees within city limits have been removed. Some of the uninspected areas, also, are being cared for by owners knowledgeable about the beetle and actively managing their land. It is likely that more trees have been removed than we know about.

Owners, for the most part, were prompt in tree removal.

Of the 351 properties with infested trees, owners of 116 properties (420 trees) did not use cost-share, but generally expressed appreciation for our efforts and removed trees on their own. Some trees were cut and chunk, some chipped, some burned, some chipped on site, and some brought to landfill.

The existence of this year's program did encourage people to remove infested trees. A common thread of opinion was that it didn't do any good to bother if not everyone removed trees; it helped for people to see their neighbors participating. A number of people expressed concern about those who were not participating.

Suggestions:

Education seminar of some kind in the fall discussing;

- mountain pine beetle identification and timeline
- examples of what IS NOT mountain pine beetle, such as Zimmerman, red turpentine beetle, pitch from wounds, pitch from western gall rust cankers, pitch from unknown sources.
- All pine trees are evergreens, but not all evergreens are pine trees. Spruce are not pine trees.
- What program, if any, that the City is providing.
- Explain ordinance. What is considered "infested"? specific number of hits? Relative to size or tree vigor? At what point is City going to force tree removal? Is cutting and chunking allowed if not being reimbursed by City? State's deadline is March 1.

Set deadlines in advance and clearly publicize.

Invite citizen feedback for future programs.

Publicity

After each press release went out, the request line was very busy. They were effective in generating citizen participation and keeping interest in the program.

Suggestions:

Keep communication lines open between generators of press releases and front line operators of the program. Allow for preview to check information, proof read, and suggest comments. Also need to keep people informed of any changes so that questions from public can be answered and that any new guidelines can be followed.

Request that owners clearly mark boundaries with ribbons on stakes at corners, or flags.

Requesting Inspections

Most requests came in by phone, although hundreds were received through the online form.

Suggestions:

Minimize phone requests. The positive side of phone calls is the relationship building and ability to answer questions if the person fielding the call is knowledgeable about the beetle and the program. During periods of heavy call load, not much of that actually happens and the calls are disruptive and time consuming.

- Send request form with initial mailing of program information. Have a PDF form available for download. Allow to mail, FAX, email or drop off completed form.
- Encourage online registration. Is it possible to have an automated response to indicate that the request was received? Could cut down on duplicate requests.

The request form: Basic design worked well.

Suggestions for form:

- Add a line for email address on hard copy form.
- Ask what is the best way to contact owner.
- May help to include lines for multiple parcel numbers of single owner.
- Did not end up using “site data” fields in the database, as it did not seem to be particularly helpful in the field. Could omit those questions from form. Mainly need to know if we have permission and ability to access the property.
- Some owners have different mailing addresses during different date ranges. Separate line? Or just a note?
- Lines or space to include more tree data from inspection (size, number of hits, other)

Inspections

Inspection crews maintained a conscientious and dedicated attitude throughout program.

Request form with owner information stapled to parcel map worked well enough. Picking up properties at the Halley Park office was fine. It provided an opportunity to check in, pick up any needed supplies and discuss any issues that came up in the day.

Contacting owners by phone prior to inspecting is time consuming but considered valuable by some inspectors. Sometimes owners had information about boundaries or needed to put a dog inside. Also they thought it was considerate to give owner some warning that they would be wandering around property on a given day. Consider automated caller to inform of inspection date.

Suggestions:

Have clear and steady criteria for marking infested trees spelled out and shared with public and contractors. Possibly different levels of beetle activity such as “Monitor-removal not recommended” “Removal recommended” and “Removal REQUIRED”

If allowance for safety equipment, hiking boots more appropriate than logging boots.

Purchase 3 GPS units. Preferrably simple, possibly with camera included. Most likely some type of Garmin.

Pre Inspection:

In program publicity, strongly request that owners mark boundaries distinctly. Some people are not physically able to do so. Can get coordinates of corners from RapidMap and use GPS to locate. Time-consuming, but less so than trying to find markers that don’t exist or that are hidden.

In some cases countour maps would be helpful. (available as a layer through RapidMap)

When making maps of parcels, check adjoining parcels to see if more than one per owner. Often owners are unaware, or don’t think of mentioning that they have more than one parcel. Some of these were discovered in the field, but still required second trip to get map. Some of these were not noticed until combing through records after the inspection period had ended. Fortunately only 1 infested tree was found on those parcels and the owner took care of it right away.

During Inspection:

- Record locations of individual or pockets of infested trees with GPS.
- Record information about size of tree and number of hits and any other notes about tree health.
- Take picture of tree (not necessarily every tree)

Notifications of Infestation

A card was left at the front door after inspection letting owners' know that their property had been inspected and whether or not any infested trees were marked. Some cards blew away. Not all inspectors are comfortable with using scotch tape on the doors. (No complaints received at office regarding tape)

Mailing notice of infested trees included a letter explaining the cost-share program and its requirements, a list of approved contractors, and a surveyor report. This worked alright, but was sometimes slow, particularly for properties surveyed late in a week.

Suggestions:

Doorhanger currently has "No Mountain Pine Beetles were found" and "Trees infested with mountain pine beetles were found" categories. Add third "mountain pine beetle activity found-low threat-no action recommended/required"

Possibly send as postcard instead of leave as doorhanger.

Need to be sure to mail notices to absentee owners whether or not infested. Be sure to record date notice sent.

For notifications of infestation, automatically send coordinates and/or map of infested trees, unless clearly not needed.

Database/record keeping

- Fields to add in database:
  - Date request made for inspection (Important),
  - Tree size, severity of infestation,
  - Forested acres (% of parcel-estimated)
- Ability to see "notes" on first screen
- Make all fields with dates able to sort in order
- Record when and which crew given property to inspect (may prevent double inspections) This could be a simple list generated by "date request" query and kept by maps. Crews could initial and date list item as they take maps.
- GPS tree location
- Have permit set to automatically print owner mailing address instead of just the lot inspected address.
- Change owner name to whoever is applying for the permit, so that the check is written to that person.

Permit/Reimbursement Process

Provided confirmation that tree was removed and disposed of properly.

Helped owners with expenses. Likely contributed to excellent citizen participation

Suggestions:

If still offering cost-share, consider a flat rate/tree. Will be unfair, but less costly and far less time consuming. Counties offered between $7 and $14 per tree, but allowed cutting and chunking. Even offering as high as $100/tree, if requiring removal to landfill with proof from scale sheet would be cheaper than a percentage of total cost. The City paid out an average of $162/tree in this year's program. Could offer To recognize the impracticality of removal in all cases, but to discourage cutting and chunking, offer the county's going rate for that practice.

Any possibility of providing hardship grants to people who can't afford removal?

Fire fuel reduction program

Best prevention for MPB is thinning. Probably better dollar value overall in keeping MPB levels "normal". Will need better system of communication, also need to visit to check if beetle trees are removed. Information that would help for beetle related record keeping:

- Owner Name
- PIN and/or address
- What date assessed. (too early for mpb detection?)
- Number of beetle trees
- What date beetle trees removed when or shortly after they're removed, also date of project completion. (may be of interest when looking at future beetle activity whether any current activity or not.)
- Contractor working on job and permission to contact regarding beetle trees
- Permission to check to confirm removed
- What portion of property inspected for beetle?

From us: If beetle trees are found in an area that seems a likely candidate for the fire program, recommend program to owner and email Tim Weaver asking if he has been in contact with the owner, or if the property is familiar to him. Time consuming, but can be of more value to the overall goal if beetle trees can be removed as part of a larger thinning project. This will be more feasible when inspections are done earlier in the year, giving more time for fire assessment and project work.

Enforcement

Infested trees seen on neighboring properties did not prove to be much of a problem. Contacting owners sometimes was difficult. For whatever reason some did not respond to our enquiries, but we found out from neighbors that the trees had been removed.

A few trees were not removed promptly and owners required some nagging and/or help contacting contractors.

When there was doubt about a diagnosis, whether due to the opinion of the homeowner, contractor or someone else in the forestry field, the City's Urban Forester, Gary Garner, revisited the site to examine the tree in question and make a determination in most cases. In some instances we asked questions over the phone to determine what they were basing their decision on. Particularly after changing the criteria from 3 to 8 hits, we accepted more changes by phone.

Everything needs to begin earlier. While it's certainly preferable to have people remove the trees on their own, we need to turn things over to code enforcement earlier.

It's important to come up with a definition of "infested" and channels for owners to challenge or confirm diagnosis. Can we define different risk levels? There isn't any research that I am aware of that can give a percentage range of mortality by number of hits. From my experience, a tree with only a few hits will overwhelm the beetles with pitch, and they will not be able to produce any brood. I have also seen "strip attacks" where many hits go up one side of the tree, but the tree doesn't die. I would guess those are still capable of producing plenty of brood. The point is, it isn't clear by number of hits whether or not a tree is actually infested with live beetles. If the goal is total eradication, then it stands to reason that even a remote chance of containing live beetles would be reason enough to remove a tree. If the goal is to keep the beetle population very low, then it makes sense to focus allocation of resources more on removing trees clearly infested, even those likely to be infested and on preventative measures.

When it comes to enforcement, what is the criteria used to force someone to remove a tree?

Determine how to inspect properties that are heavily forested, no infested trees are spotted on the edges, and that no permission has been granted to access property. If any trees infested last year are spotted from the aerial survey, could this be considered cause enough to force entry? Also, what about neighbor requests to inspect certain properties?

2012 Mountain Pine Beetle Tree Removal Project

Contractors

A list of 16 contractors approved by the City was sent with the letter notifying owners of infested trees. Below is a table breaking down the number of jobs and amounts awarded by contractor.

Company	# Jobs Awarded	Amt Reimbursed (75 or 50% of total)	# Trees Removed	# Acres Affected	#Trees cut and chunked	Avg$/tree	Avg$/acre
Hagel's Tree Srvice	51	27440.8	159	156.1		172.58	175.79
Frank's Tree Service	32	15578.88	114	183.4		136.66	84.94
Bradeen Skid Steer Services	25	9850.31	60	226.7	3	164.17	43.45
MP Forest Enterprices, LLC	24	10079.89	78	67	11	129.23	150.45
Willson's Tree Service, Inc.	22	12627.89	93	48.6		135.78	259.83
Stranded Outdoors Property Svs.	18	6845.51	64	539		106.96	12.7
GJ Holsworth & Sons	13	20246.63	95	73		213.12	277.35
Black Hills Thinning	10	5712.88	36	42		158.69	136.02
Western Tree Service	9	3816.03	17	32.6	1	224.47	117.06
G & S Forest Management Svc.	7	4374	17	12.5		257.29	349.92
Johnson Tree Service	6	8875.4	27	7.4		328.72	1199.38
C & T Construction	4	2143.28	14	36.5		153.0914	58.72
Bennett Branch Busters	1	1380	6	1.6		230	862.5

Landfill

The landfill's willingness to take the beetle-infested wood for free was a key component in the success of the program. Working with a nearby company, they came up with a product that could be created from some of the wood.

I haven't heard back from their staff regarding what parts of the program could be improved in relation to them. One thing might be clearly explaining to owners and contractors that logs >24" diameter need to be separated from other materials when dropping off at the landfill.