2022 Chipping Summary

- 10,502 cubic yards of flammable material removed
- Average of 3.07 cubic yards per pickup
- Supporting 3,307 completed pickups county wide
  - 90% of participants rated their experience with MWPA curb chipping as 5 out of 5
- Driving investment by residents
  - For every $100 spent on this program, residents spent $120 and invested 4.7 hours of time removing fuel. Increased from $75 for every $100 and 2.4 hours spent in 2021.
- Five extra weeks of chipping added due to popular demand
- Additional service offered while staying within existing budget
2022 Chipper Program Overview

The program design provided for two scheduled weeks of service for all communities within the jurisdiction of the MWPA in addition to being a resource that could be called upon by any of the 17 agencies that make up the MWPA. As was the case with the first two years of the program, the aim was to be able to offer vegetation removal services equitably to all residents regardless of their location in the county in order to reduce fuel loads and subsequently, regional fire risks.

2022 saw the continuation of severe drought in the area but a more mild fire season for the northern area of California and the greater Western United States. Throughout the season, the Marin Chipper Day Program continued to provide support to residents in their efforts to reduce their fuel loads as well as continue to grow program awareness.

The program was able to incorporate five additional weeks of chipping services - one per zone within the JPA - while staying within its existing budget. This additional chipping was in response to public request and allowed the program to test new outreach practices.

The program continued to utilize software made by Marin based, Fire Aside, to great success. The ability of the software to manage and track reservations, plan the most efficient routes, and allow crews to input pile size estimates along with pile photographs was invaluable to the success of the season.
Over the years, the residential chipping programs throughout the County have subscribed to a static and recurring list of goals. Not least of which is simply the removal of hazardous vegetation and the dissemination of prevention and safety information.

The 2022 season saw the continued commitment to the goals laid out during the past seasons. MWPA strives to provide the free services of the Chipper Day Program to all residents of Marin in an equitable fashion as well as to assist in lowering the carbon footprint associated with residential cleanup and vegetation removal.
2022 Chipper Program

The Marin Chipper Day program is designed as a curbside pickup service. The program is organized to allow for two rounds of pickup for all Marin County communities that fall within the five MWPA zones. During the 2022 season, the two rounds of chipping were between May 16th to July 29th for round one and August 15th to October 28th for round two.

The program breaks Marin County into four service zones (North, Central, West and South) and assigns one three-person crew to cover each zone during the week with the option to deploy additional crews based on demand.
A planning team with members from each of the 5 MWPA zones began meeting in January to develop the 2022 chipper program proposal.

Contractors were selected by competitive process. Chipping schedule created and posted to the public.

June 17 MWPA allocates $1,250,000 for FY 2022-23 Chipper Program.

The first chipper pickups took place on May 16th and the last pickup was Dec 6.
Fire Aside’s continued partnership allows the program to address known issues

Partnership case study: In August, Chipper Day staff approached Fire Aside with a goal to reduce the Could Not Find (CNF) piles.

CNF piles happen for a variety of reasons but often are when the resident forgets to cancel the reservation. We estimate eliminating CNFs improve the program efficiency by 5-10%.

Fire Aside had been working on this problem and together with program staff executed a research plan to get data from residents on the causes behind CNF. The top cause (30.2%) was related to forgetting to cancel. With this information Fire Aside implemented additional text messaging and reminders. Testing at end of season indicates this already reduced CNFs by 15%. Work on lowering the CNF rate will continue in the 2023 season.
Program Management

What does it take to operate a curbside chipping program that covers 90% of Marin & serves thousands of residents in 5 months?

Staff

The 2022 program was managed by Steven Peters and Brendan Devlin, two Marin County residents who are passionate about serving the community and mitigating wildfire risk. Here’s a “behind the scenes” peak at what is involved in planning and operating such a large and complex program serving Marin.

Pre-season planning

Program planning begins in January and involves the creation of a detailed plan outlining the size, scope, and design of the upcoming year’s program. Program Managers meet with local government representatives, fire officials, and members of the public to discuss logistics, answer questions, and solicit feedback.

Once the plan is finalized, an RFP is published and the contractor selection process begins. Program Managers collaborate with the Planning Committee to review and analyze all bids, vet the finalists, and make recommendations.

Chipping season activities

Operating the program is a 7 day a week job from mid-May until the beginning of December. In addition to supervising 4 chipper crews every day during the week, Program Managers respond to thousands of inquiries from the public throughout the season. Answering questions, handling logistical “curveballs,” and solving complex problems, are all in a day’s work. Behind the scenes, Program Managers handle all the necessary Finance, Compliance, and Reporting functions that come with running a public program with a $1.25 MM+ budget. Detailed reports are created and presented at monthly meetings of the MWPA Board. Coordinating services with MWPA Member Agencies to support the overall mission of fuel reduction and marketing the program to Marin County residents are also key responsibilities handled by the Program Managers.
Program changes for 2022

Year three of Chipper Days brought a number of changes to the program’s organization to allow continued expansion of service and to run as efficiently as possible.

ADDITIONAL CHIPPING: The program was able to offer additional chipping while staying within the allotted budget.

INCREASED PILE SIZE: Pile size was standardized to 20'x4'x4'.

TEXT ALERTS: The program utilized SMS text message alerts during the postseason chipping.

IMPROVED OUTREACH: The program increased the number of methods utilized to spread awareness.

“Great alert and pickup service”

“Great program, so pleased with 3 chipper days this year. Thank you!”
Extra Chipping for 2022

Staff identified that the program had the financial capacity to offer one additional round of chipping to all residents within the JPA. At the conclusion of the regular season for 2022, the program commenced a 5 week extra chipping event that allowed for one additional of chipping for each of the five MWPA zones.

During the five weeks of extra chipping, crews increased the number of pickups from 2,561 in the regular season to a total of 3,307 for 2022. These pickups resulted in an increase in volume collected, from 8350.5 cubic yards in the regular season to a total of 10,502 cubic yards for the year’s total.
New outreach in extra chipping

During the lead up to the bonus chipping, staff explored new options for outreach to the public as well as new ways for the public to interface with program staff.

In order to reach additional portions of the population who may not have heard of the program before, program staff placed advertisements in the Marin Independent Journal in both a digital and print capacity. Additionally, physical advertisement tools that included over-roadway banners and picket-style yard signs were deployed in multiple locations throughout the county.

To better assist crews in locating vegetation piles at residential addresses, a tool was enabled that allowed residents to leave notes for staff and crews to view during the reservation process. This function allowed residents to indicate exactly where to find their pile if it was not directly in front of their home.
The program continued in its third year to provide service to the residents of Marin. The program followed a similar season schedule as 2021 with minor alterations and the addition of additional chipping in November.

The free curb pickup program continues to overwhelmingly drive resident behavior.

<table>
<thead>
<tr>
<th></th>
<th>All County*</th>
<th>FireWise Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cubic volume</td>
<td>10,812</td>
<td>5,831</td>
</tr>
<tr>
<td>Completed pickups</td>
<td>3,307</td>
<td>2,655</td>
</tr>
</tbody>
</table>

*All county refers to all MWPA participating jurisdictions (ie excludes Tiburon)
The program is driving removal of the most hazardous material

Vegetation removed due to chipping program

- Dead Vegetation: 60.00%
- Vegetation within 0-5 feet of structure: 40.00%
- Other: 20.00%
- Cypress/Juniper: 17.00%
- Bamboo: 15.00%
- Palms: 5.00%
- Unsure/Don’t Remember: 4.00%

n=1796, residents can select multiple options

But 74% of residents report having more vegetation still to remove

Did you remove all the vegetation you wanted to?

- No More to Remove: 30.00%
- Yes - Removed Everything: 20.00%
- Unsure/Don’t Remember: 10.00%
We continue to expand the program reach to new participants

3,639 cubic yards were removed by residents who first used the program in 2022

<table>
<thead>
<tr>
<th>Avg. Pile</th>
<th>Avg Pile</th>
<th>Avg Pile</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 cohort</td>
<td>5.68</td>
<td>4.40</td>
</tr>
<tr>
<td>2021 cohort</td>
<td>N/A</td>
<td>3.97</td>
</tr>
</tbody>
</table>

The average volume of repeat chippers suggests the program is helping them move into maintenance mode.
Curbside program eliminates 90% of the miles associated with removal of this material

1 Chipper Truck = 17+ small landscaper pickup trucks

If each individual resident took their material to the nearest landfill this would translate to over 47,000 miles. The Chipper program was less than 5,000 miles for the entire season

Eliminating over 16,400 kg of CO2

“We have a large wooded area on our property with redwood and bay trees. We continuously try to remove dead or fallen trees and Scotch Broom. We are very appreciative of the chipper program in helping to get rid of said trees and debris. In past years we’ve made numerous trips hauling the debris to the Nicasio dump site. The chipper program has saved us time, hauling, and money. The only improvement would be if it could be done twice a year. Thank you for this program.’
Service Areas

Pickups were tracked both by area collected in and agency jurisdiction.
Understanding return on investment

The curbside chipper program represented an excellent return on taxpayer dollars, delivering the desired results in an efficient and cost-effective manner.

**Investment**

Total program expenditures during the 2022 program totaled $829,952. This represents a 7% decrease from the prior season.

**Results**

5 extra weeks of service were provided to residents during the 2022 season.

90.6% of participants stated that the curbside chipper program caused them to remove the harmful vegetation on their property.

90% of participants rated the program as a 5 (highest rating)
Understanding return on investment (continued)

Value
The cost for a homeowner to properly remove vegetation from their property is dependent on a number of different factors and thus varies greatly from property to property. Most private contractors will charge a minimum of $150 for any chipping and/or vegetation removal project. In addition to the financial cost, there is also the time and labor involved in removing the vegetation properly. As one homeowner noted:
“...[the problem facing homeowners] is usually not the work of cutting all the low hanging branches and the gathering of the dead vegetation, it’s how to dispose of it all. Your crew efficiently chipped everything and even cleaned the driveway before moving on to the next pile down the road.” - San Anselmo resident.
Bottom line - The value of three free chipper days far exceeded the Measure C tax payment of almost all Marin County residents.

Conclusion
Program leaders prudently managed their allocated budget and kept overhead low—over $0.93 of every dollar spent during the 2022 season went to the core mission: chipping and disposing of dangerous vegetation fuel.
Spending by zone for FY 21-22

The Chipper program functions on a calendar year format. As such, the funds allocated to the program must cover the latter portion of the previous season and the beginning of the current season in order to be in line with the fiscal year.

During FY 21-22 the program's spending was broken down to reflect the amount spent in each of the five MWPA JPA zones. This breakdown is as follows:

<table>
<thead>
<tr>
<th>Zone</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Marin</td>
<td>225,403.27</td>
</tr>
<tr>
<td>West Marin</td>
<td>145,040.32</td>
</tr>
<tr>
<td>Novato</td>
<td>166,957.46</td>
</tr>
<tr>
<td>San Rafael</td>
<td>188,874.64</td>
</tr>
<tr>
<td>Southern Marin</td>
<td>218,097.55</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>944,373.24</strong></td>
</tr>
</tbody>
</table>
“The Chippers were just here and did an excellent job - efficient and pleasant. Thank you so much.”

“We are so dedicated to maintaining a fire safe environment. I so appreciate what you and your team are doing. Thank you so much for this!”

“So relieved. Thanks for offering this service. We SO appreciate it.”

“Thanks to you we have made a lot of improvements to our property to make it more fire safe. The chipping crew did a fantastic job and left the area cleaner than when they arrived.”

“I really value Chipper Days. Not only do they enable me to directly improve our property, the idea of Chipper Days motivates me to take other actions. It’s a reminder that there’s much more to be done.”

“I’m sure my neighbors appreciate this program too. It is nice to see the many different people/disciplines involved in this project.”

“This is a great program. I have participated several times, and gotten several other neighbors to do so also.”

“I feel better about my fire safety.”
Looking to the future

In the wake of the successful chipping season expansion the program will continue to develop additional opportunities to offer service to Marin residents. The program will transition the standard season schedule to reflect MWPA's 5 zones. Additionally, program staff will work closely with Defensible Space Inspection teams to provide a resource for residents looking to act on their inspection reports.

The Chipper Day program will also begin coordination with Marin County Fire Department's Fire Foundry program to help provide field experience for Foundry cohort members.

Finally, the Chipper Day program will continue to work closely with our partner agencies to ensure that information about the program continues to be spread to all interested residents. It is our goal to see growth in all agency jurisdictions and to work tirelessly to provide support.
Thank You
In partnership and support with:

- Bolinas Fire District
- City of Larkspur
- City of Mill Valley
- City of San Rafael
- County of Marin
- Fire Aside
- Fire Safe Marin
- Inverness Public Utility District
- Kentfield Fire Protection District
- Marinwood Community Services District
- Muir Beach Community Services District
- Novato Fire Protection District
- Sleepy Hollow Fire Protection District
- Southern Marin Fire Protection District
- Stinson Beach Fire Protection District
- Town of Corte Madera
- Town of Fairfax
- Town of Ross
- Town of San Anselmo