EAST BAY MUNICIPAL UTILITY DISTRICT
INTEGRATED PEST MANAGEMENT PROGRAM (IPM)
ANNUAL UPDATE for 2022

Introduction

Integrated Pest Management (IPM) is a comprehensive pest management process that involves determining appropriate control methods based on the pest and site-specific conditions. IPM focuses on managing pests with minimum impact to human health, the environment, and non-target organisms by requiring a variety of non-pesticide control methods be considered in addition to pesticide controls. Since the mid-1990s, the District has been implementing an IPM program to address a broad range of pest control issues on our watershed lands, pipeline and aqueduct rights-of-ways, and operating and administrative facilities across the East Bay and upcountry in the Sierra foothills. This annual update provides a summary of program activities and pesticide application data for the calendar year period from January through December of 2022.

IPM Training

The District held annual IPM training for over 90 field staff and supervisors in early 2022. The training included sessions on IPM methods, rules and regulations, health & safety considerations, sensitive species and habitats, and recent developments in vegetation management. Speakers included regulators, biologists, compliance specialists, and regional IPM program managers. In addition, the District hosted a preparation training for staff who wanted to take the Qualified Applicator Certification (QAC) test administered by the California Department of Pesticide Regulations (CDPR). Several staff, including those who currently hold a QAC also attended additional IPM related trainings offered by external organizations and agencies.

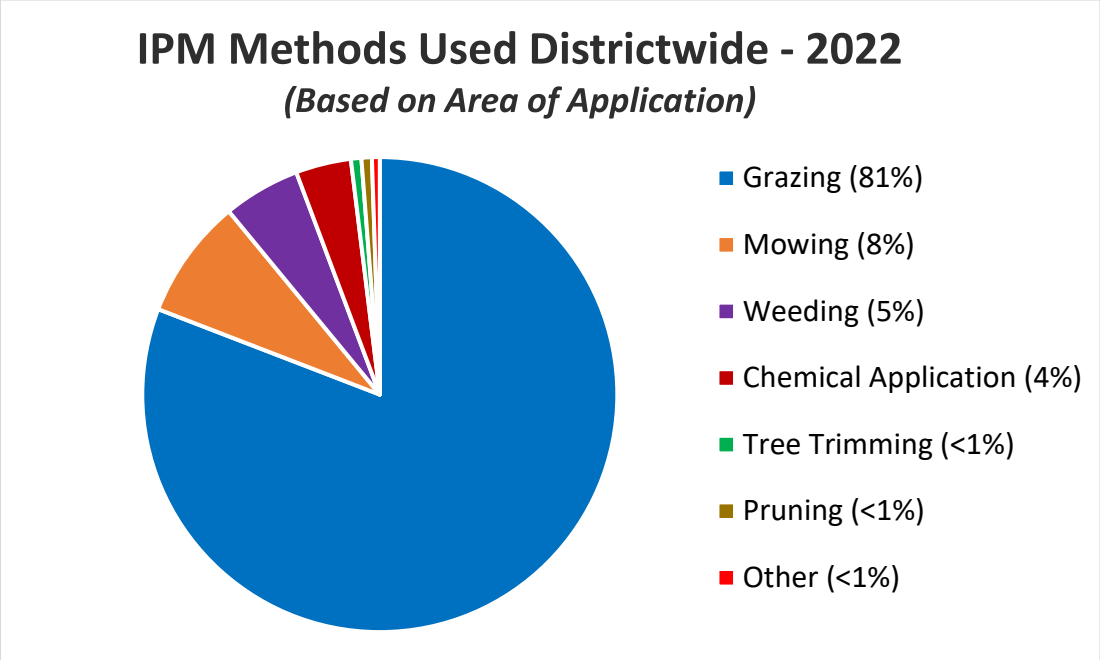
Data Management

In August 2022, the field data collection platform for the District's IPM program was switched from an electronic worksheet to a GIS-based application. The new system helps collect data based on geographic points for better visual interpretation and decision making on IPM methods. It also allows staff implementing IPM to enter field data using a GIS app on their smart phone or tablet while working in the field. Multiple training sessions were conducted for staff to familiarize them with the new app and its functionality. Efforts to enhance the data system and improve efficiency will continue in 2023.

Pesticide Application and other IPM Methods Used

An evaluation of IPM methods used by District staff and District hired contractors was performed to determine general trends as well as to compare pesticide application against other IPM methods. Figure 1 shows a summary of IPM methods used in 2022 based on the area of application. Grazing followed by mowing and weeding accounted for IPM methods used at

more than 90% of the total area, while chemical application was used only at approximately 4% of the area.



In 2022, approximately 1,546 pounds of pesticides were used by the District and District hired contractors. Of this amount, approximately 1,274 pounds were glyphosate-based products. As shown in Figure 2, the total pesticide use by the District has been fairly consistent over the past three years.

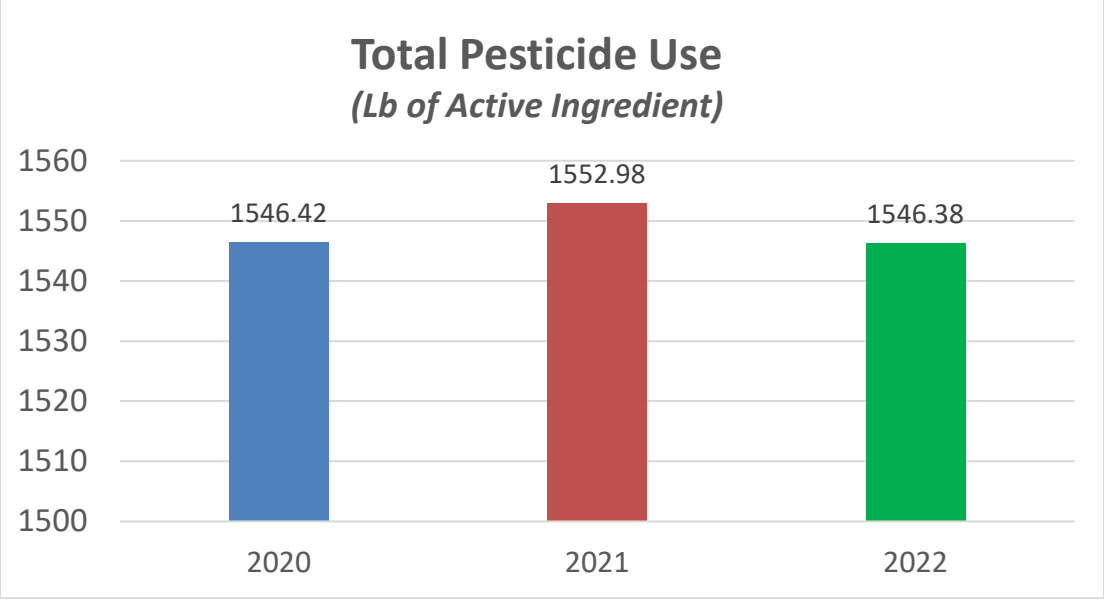


Table 1 shows the complete breakdown of pesticide products used in 2022.

Pesticide	**Quantity (lbs)**
Accord	3.75
Accord XRT	56
Dimension 2 EW	6.64
Esplanade 200 SC	86.77
Gallery SC	7.4
Garlon 3A	11.1
Garlon 4	22
Milestone	24.34
Milestone VM	5.12
Ranger Pro	218.61
Raptor	2
Reward	0.93
Rodeo	549.28
Ronstar Flo	82.9
Roundup Pro Max	391.77
Roundup Pro Conc	54.17
Suspend SC	0.0007
Tengard SFR	0.008
Transline	14.1
Wisdom TC	0.05
Advion Ant Gel	0.0001
Alpine WSG	0.02
Gopher Getter	0.0004
Oust XP	0.42
Telar XP	9
Terad 3 Blox	0.01

Pilot Study

In 2022, staff initiated an effort to evaluate alternatives to glyphosate-based pesticides. Facilities and landscape maintenance staff assisted by the District's IPM consultant started developing a work plan for a pilot study. The study involves field applications of select pesticides at plots of similar sizes and specific District properties. The work plan identified two test locations for the pilot in varying climates and terrains. The effectiveness of selected pesticides for vegetation management will be visually compared to the performances of glyphosate as well as an untreated area as a control. The pilot study is expected to be completed in 2023. Results from the pilot will be used to help inform the IPM program managers if new tools should be added to the District's IPM toolbox.