Appendix B: 2024 TAG Survey Responses

To begin assessing the current state of invasive plant species management in the Tualatin River basin, members of the Technical Advisory Group (TAG) were sent an online survey that would allow them to share information about where they work and their invasive plant management priorities. This collaborative process helped to inform the priority efforts highlighted in the Five-Year Plan.

The goal of the survey was to collect information on invasive weed priorities, priority areas for protection, current gaps in knowledge, opportunities or potential constraints, and overall interest in implementing a weed management plan. TAG members were contacted by phone and/or email to determine interest in participating in the online survey. The survey was open from November 2023 - March 2024. Individuals were asked to coordinate within their organization so they submitted only one response. At the end of the survey period a total of 29 submissions were received with the following organizations participating:

- 4-County Cooperative Weed Management Area
- Clackamas Soil & Water Conservation District
- Clean Water Services
- City of Beaverton
- City of Hillsboro - Jackson Bottom Wetland Preserve
- City of Lake Oswego - Parks Natural Areas
- City of Portland - Bureau of Environmental Services
- City of Tigard
- City of Tualatin
- City of West Linn
- Columbia Land Trust
- Green Banks LLC
- Metro
- Mosaic Ecology LLC
- Oregon Department of Agriculture Noxious Weed Program
- Oregon Department of Fish & Wildlife
- Oregon Department of Forestry
- Oregon Parks & Recreation Department
- Oregon State University Forestry & Natural Resources Extension Fire Program
- Stimson Lumber Company
- Tualatin Hills Parks & Recreation District
- Tualatin River Watershed Council
- Tualatin Soil & Water Conservation District
- U.S. Fish & Wildlife Service - Tualatin River National Wildlife Refuge Center
- Valley Agronomics
- Washington County
- Washington County Parks
- West Multnomah Soil & Water Conservation District
- Western Invasives Network

Summary of 2024 Survey Results

The results of this survey gave a valuable snapshot of the priorities of TAG members. However, these results do not represent a basin wide analysis of invasive weed species priorities. It is important to note that the survey sample size was limited to specific sub-watersheds and responses reflect particular work areas within sub-watersheds. When deciding which sub-watersheds to prioritize, the TWIST attempted to address feedback from agencies and organizations that work or have the potential to work in all or many sub-watersheds. For future analysis, survey responses that only cover city boundaries, and therefore skew results as they are concentrated within the few urbanized sub-basins of the Tualatin River watershed, will be studied separately from basin wide responses. Entities with distinct boundaries will rightfully advocate for prioritization of the relatively small area of the county that their jurisdiction covers. The prioritization opinions of entities who work across the entire subbasin holds different weight because of the more holistic vision of the watershed they are positioned to have. A summary of the TAG survey results and takeaways can be seen below. Additional survey responses can be found in Appendix E.

Invasive Plant Prioritization
When asked “What mechanisms do you use to prioritize invasive plant work?,” 74% of respondents indicated that they prioritize management decisions by the invasive plants involved, 63% assess sites on a case-by-case basis before making invasive plant management and restoration decisions, 41% determine invasive plant work through funding allocation, and 37% determine invasive plant work through a strategic plan. 19% of respondents indicated that some other, unlisted mechanism is responsible for prioritizing their invasive plant work, including crop value, herbicide availability, fire risk, and Oregon Department of Fish & Wildlife priority species (game and nongame).

Data Collection
When asked “Where do you currently collect data on invasive plant presence, distribution, and treatments in the Tualatin Watershed?,” 52% of respondents indicated they utilize ArcGIS Online, 22% utilize ODA WeedMapper, 15% use some other internal database, 11% use iMapInvasives, 7% use iNaturalist, 4% use AgWorld, and 4% use the Oregon Invasives Online Hotline. 15% of respondents indicated that they do not collect this type of data.

Commonly Treated Invasive Plants

When asked “What are the five most commonly treated invasive plants within the area you work in?,” respondents indicated blackberry (67%), ivy (48%), thistle (44%; including *Cirsium arvense, Cirsium vulgare,* and *Silybum marianum*), reed canary grass (41%), and garlic mustard & knotweed (both 30%). See Figure 3.1 below.

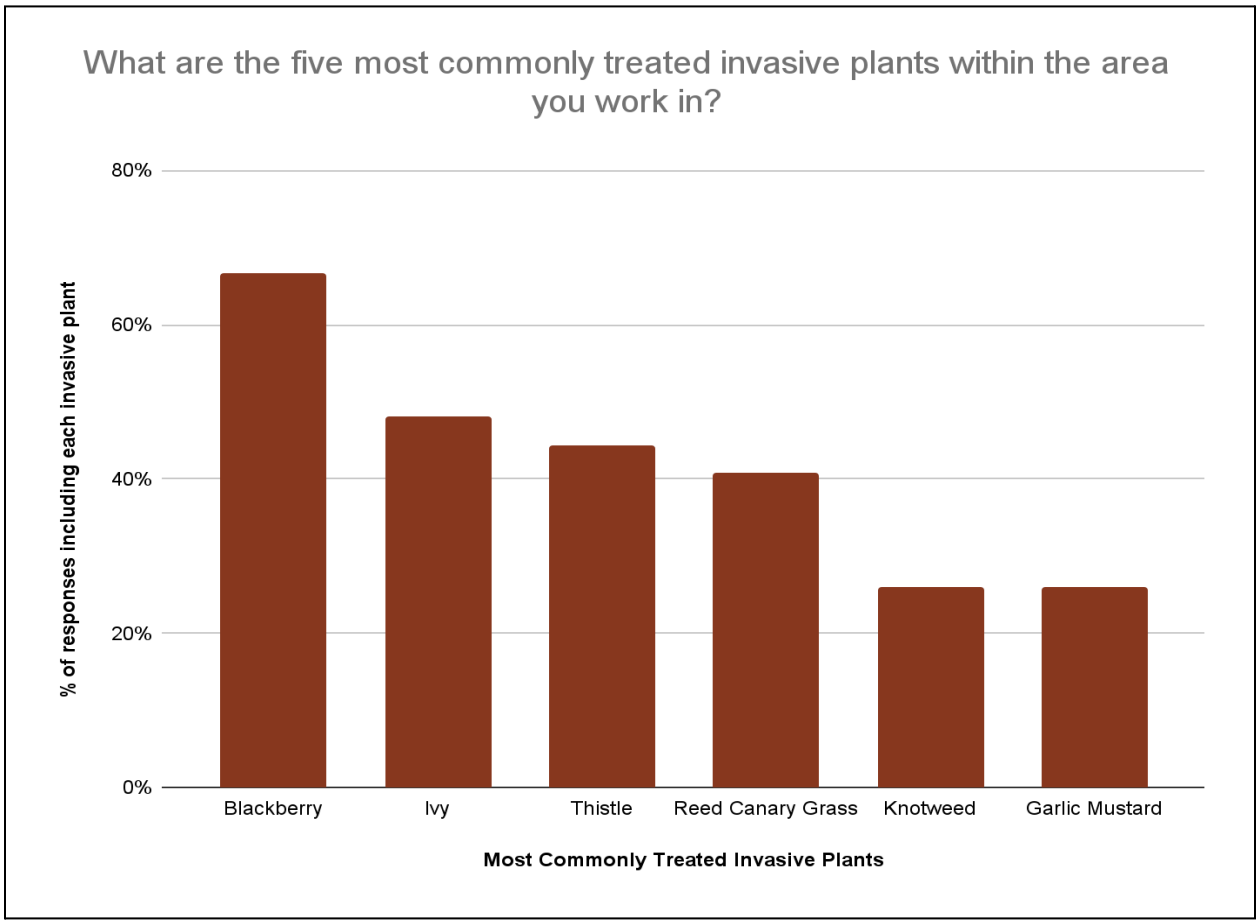

Figure 3.1: Summary of the five most commonly treated invasive plants identified by survey respondents.

Management: Highest Priority Invasive Plants
When asked “Within your work area, what do you/your organization consider the five highest priority invasive plants for management efforts?,” respondents indicated blackberry (48%), knotweed (41%), ivy & reed canary grass (both 37%), and garlic mustard (30%). See Figure 3.2 below.

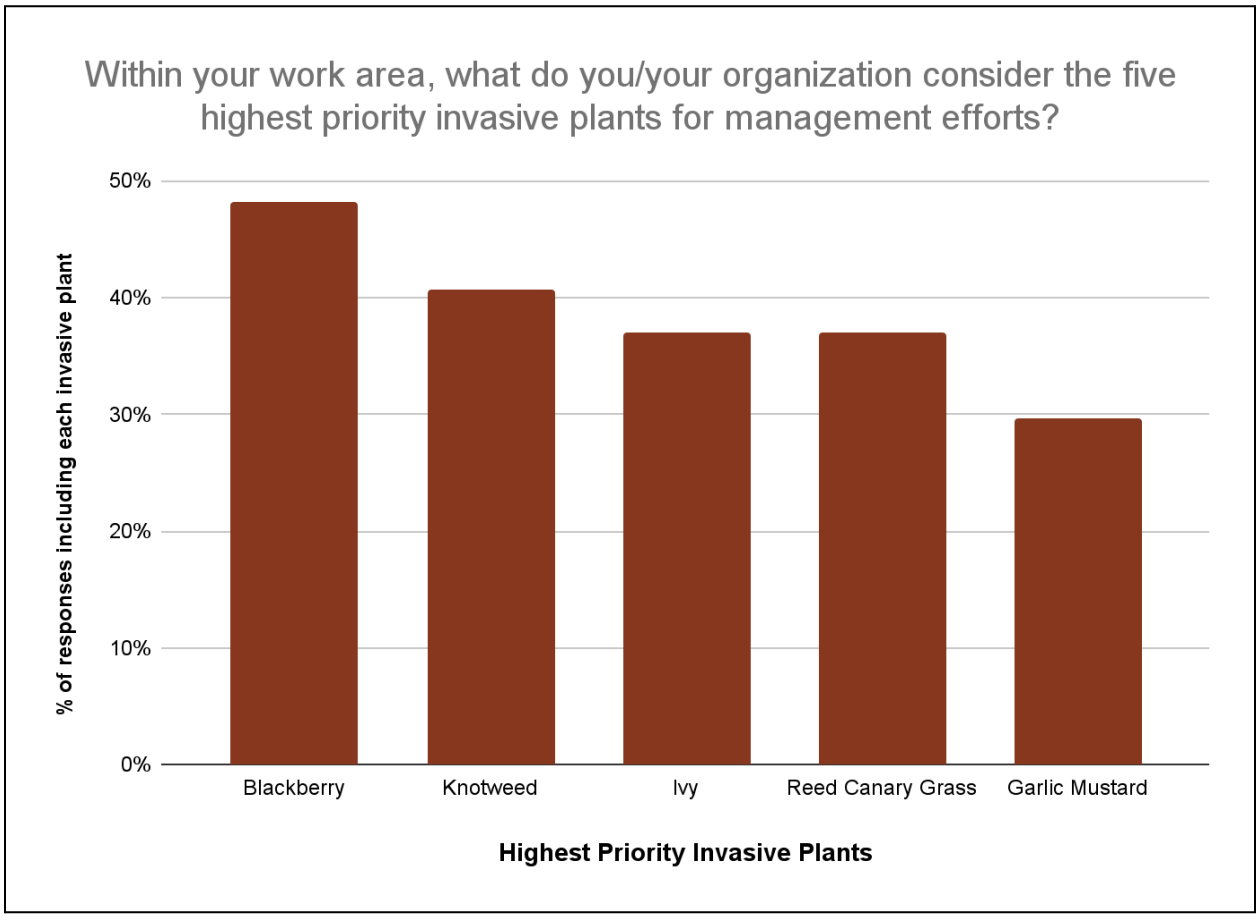

Figure 3.2: Summary of the five highest priority invasive plants identified by survey respondents.

Prevention: Highest Priority Invasive Plants
When asked “Which invasive plant species are you/your organization most concerned with preventing from entering the Tualatin Watershed?,” many respondents listed species they/their organization are concerned with preventing from entering or expanding within their work area, rather than the Tualatin Watershed. Respondents indicated garlic mustard, knotweed, and ludwigia (all 22%), false brome (15%), and Parrots Feather (11%). It should also be noted that 22% of respondents provided an “other” response, including the following: N/A, unsure, not focused on this, or too many to list.

Containment, Eradication, or Local Suppression of Invasive Plants Species Within a Work Area
When asked “Are there invasive plants currently present within your work area that may be possible to eradicate?,” 65% of respondents answered “yes”, 19% of respondents answered “no”, and 15% said “unknown” or “N/A”. Respondents indicated blackberry (11%), and ivy, hogweed, oblong spurge, parrots feather and puncturevine (all 7%). It is important to note that respondents were answering this question about specific management areas they work in, and that these responses do not relate to the Tualatin watershed as a whole. The term eradication indicates that a species population has been completely removed from an area. While some of the species listed may be possible to eradicate from a single work area, the common weed species listed under this

response are more likely to be contained or suppressed within a work area but still require routine monitoring and management to keep populations from resurfacing.

Information / Resource Gaps

When asked “Are there any information or resource gaps in how you collect and report on invasive plants?,” 30% of respondents indicated a need for increased information sharing across partner organizations within the Tualatin Watershed, including having a better understanding of how others collect and report invasive plant data, staying informed of new threats that would benefit from collaboration, and difficulty seeing/accessing partner data. 26% of respondents indicated that staffing, capacity, and/or funding limitations created a gap in invasive species data collection and reporting. Another 26% responded with “no”, “N/A”, or “unknown”. Other responses to this question included gaps in data collection & management (11%), gaps in knowledge (7%), and lack of region wide priorities (7%).

Collaboration within the Tualatin Watershed

When asked “Do you currently collaborate and work with partner organizations within the Tualatin Watershed? If so, how do you work together?,” 81% of respondents confirmed their collaboration with others in the watershed. These collaborative efforts include various formal and ad hoc arrangements, such as those focused on wildfire prevention, stream and habitat restoration, invasive species management, funding procurement, technical assistance, and specific projects like refuge restoration, garlic mustard control, and forest thinning.

Geographic Prioritization

Decisions on how to prioritize weed management actions across sub-watersheds are affected by geographic locations. Factors that affect these decisions are dependent on land ownership, species of concern, or the variation in habitat and climate conditions. Survey respondents gave examples of how they prioritize where actions should be taken across the land that they work in. Most respondents mentioned that, when they have the choice to prioritize, they focus on the most aggressive weed species first. High priority noxious weeds are addressed first no matter their location. Of the survey results, 22% of respondents mentioned that they prioritize across restoration sites. Multiple responses included prioritization based on dispersal pathways and vectors of concern, often along road and timber routes. Strategic investment areas, either active or previous restoration sites, were noted as being a higher priority than investing in new areas.

Existing Efforts in the Tualatin Watershed

When asked "Where do you primarily work within (or near) the Tualatin Watershed?" respondents were guided to an online interactive map that allowed them to select all of the sub-watersheds they work in on a Hydrologic Unit Code (HUC) 12 scale. The TWIST team used a HUC-12 scale to break down the watershed into manageable regions that would allow for targeted patch prioritization. These results are reflective of TAG partner responses as of January 2024, it is not an all inclusive list of work the partner agencies and organizations have achieved within the Tualatin Watershed. Table 1 is a list of the HUC-12 watersheds that had the most overlap in partner work reported in the survey. This information is valuable in noting where the most collaboration occurs across TAG partners. These results were used to help guide the conversation for selecting the priority sub-watersheds. To see the full list of results with all partner agencies and organizations responses see Appendix A.

Table 1: Partner responses for HUC-12 watersheds that they/their organization have performed invasive species work in, as of January 2024.

HUC-12 Sub-watersheds with the Most Partner Overlap	Number of Partners Involved
Fanno Creek	14
Rock Creek-Tualatin River	11
Saum Creek-Tualatin River	11
Upper Rock Creek	11
Davis Creek-Tualatin River	10
Oswego Creek-Willamette River	9
Wapato Creek	9
Beaverton Creek	8
Christensen Creek-Tualatin River	8
City of Forest Grove-Tualatin River	8
Council Creek-Dairy Creek	8
Lower Gales Creek	8

Partner project areas were mapped across the Tualatin Watershed. The majority of work has been focused on the southeastern regions of the watershed. This coincides with the land use across the watershed as it becomes more urbanized towards the southeast.

Land Types

When asked "Where do you focus your invasive plant efforts?," 81% of respondents indicated that their invasive plant work takes place on public land, 48% work on private land, 26% work on employer owned/managed land, and 7% work on rights of way (ROW).

Primary Roles

When asked "What is your primary role in addressing invasive plants?," 70% of respondents indicated that they treat invasive plants, 67% provide support to partners working in the watershed, 63% conduct site based restoration, 48% perform survey and monitoring work, 44% conduct outreach and education, and 37% request and/or provide funding.

Threatened and Endangered Species

When asked "Are there any Threatened or Endangered species present within your organizations treatment areas?," 41% of respondents answered "yes", 26% of respondents indicated that there were no listed species present and 33% answered "unknown", "unconfirmed" or "N/A". Of those who answered "yes" the following species were listed: white rock larkspur *(Delphinium leucophaeum),*

Oregon ash (Fraxinus latifolia), Nelson's Checker-mallow (*Sidalcea nelsoniana*) and Kincaid's lupine (*Lupinus sulphureus ssp.*). Additionally, fender's blue butterfly, salmon and steelhead species, lamprey, reptiles, and amphibians were mentioned as being present.

Utilizing the Plan

When asked “How do you envision you or your staff/coworkers would use this TWIST Five-Year Invasive Weed Management Plan?,” respondents indicated that they anticipate using the plan to support prioritization, strategic planning, collaboration, information sharing, fundraising support, resource allocation, and operational implementation. For example, one respondent said the plan will give them a better understanding of the weed management resources available to landowners and a more holistic perspective on projects. Another respondent said they would use the plan to gain insight on how to best promote overall watershed health and resiliency through management strategies. Also mentioned was the opportunity to increase public awareness of efforts and to collaborate with external partners to treat priority areas in the County rights-of-way.