

National Park Service
U.S. Department of the Interior



Working together against weeds: Developing effective best management prevention practices in California's National Parks

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Invasive Plant Management Program

- Prevention
- Early Detection / Rapid Response
- Control / Restoration
 - Education / Collaboration / Outreach
 - Monitoring
 - Research
 - Planning / Prioritization

Plant resources

Moderate

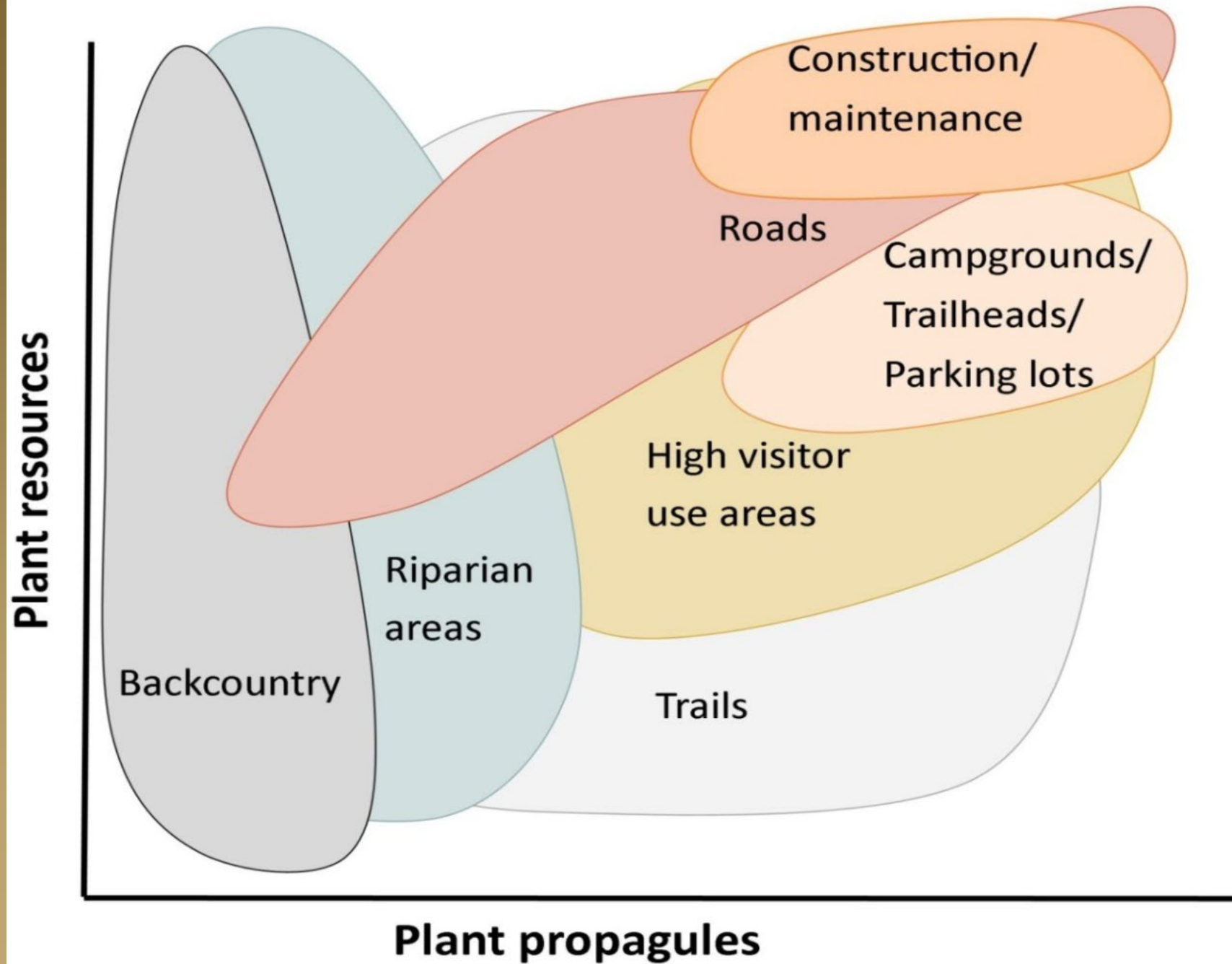
Very high

Low

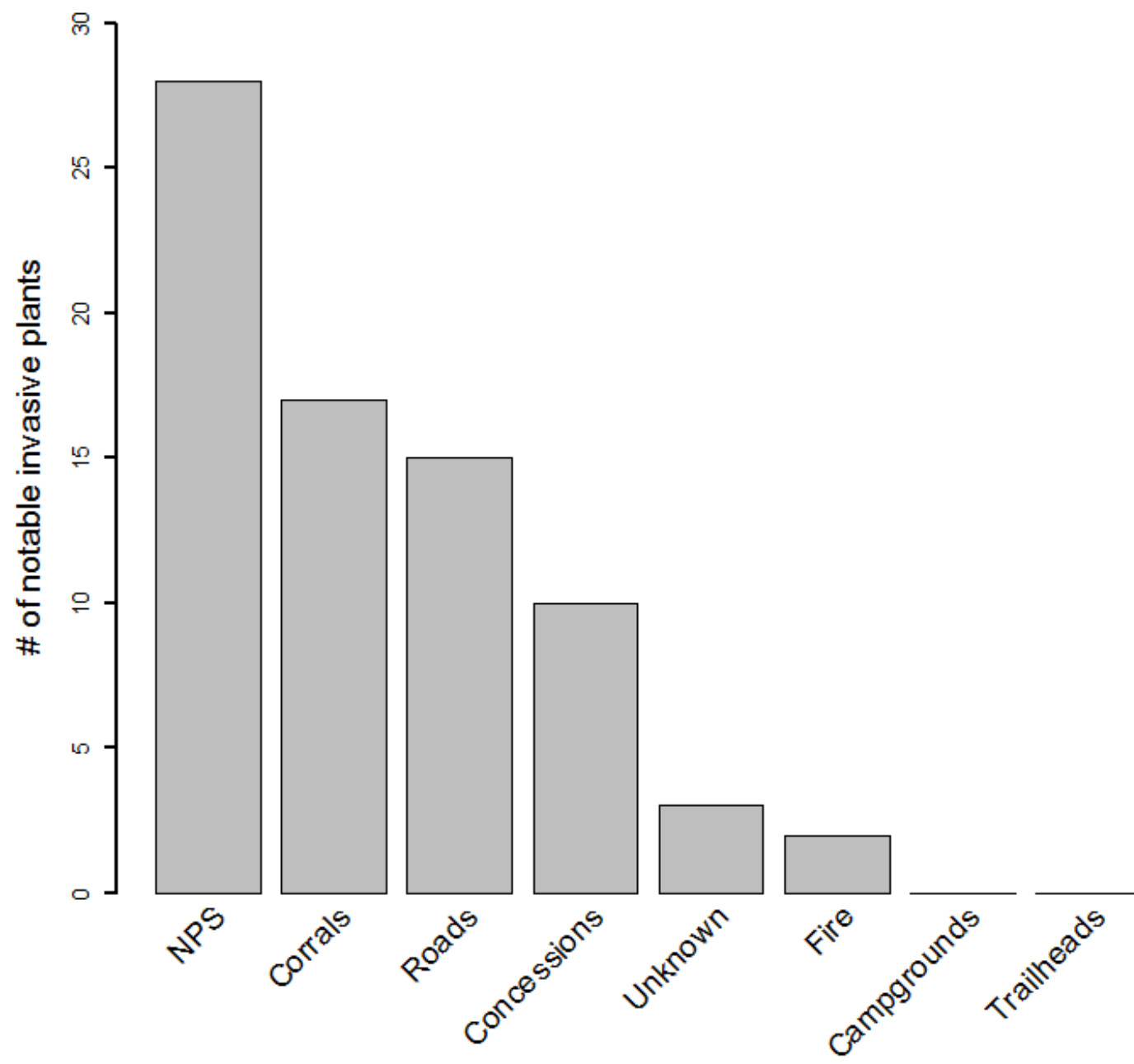
High

Plant propagules

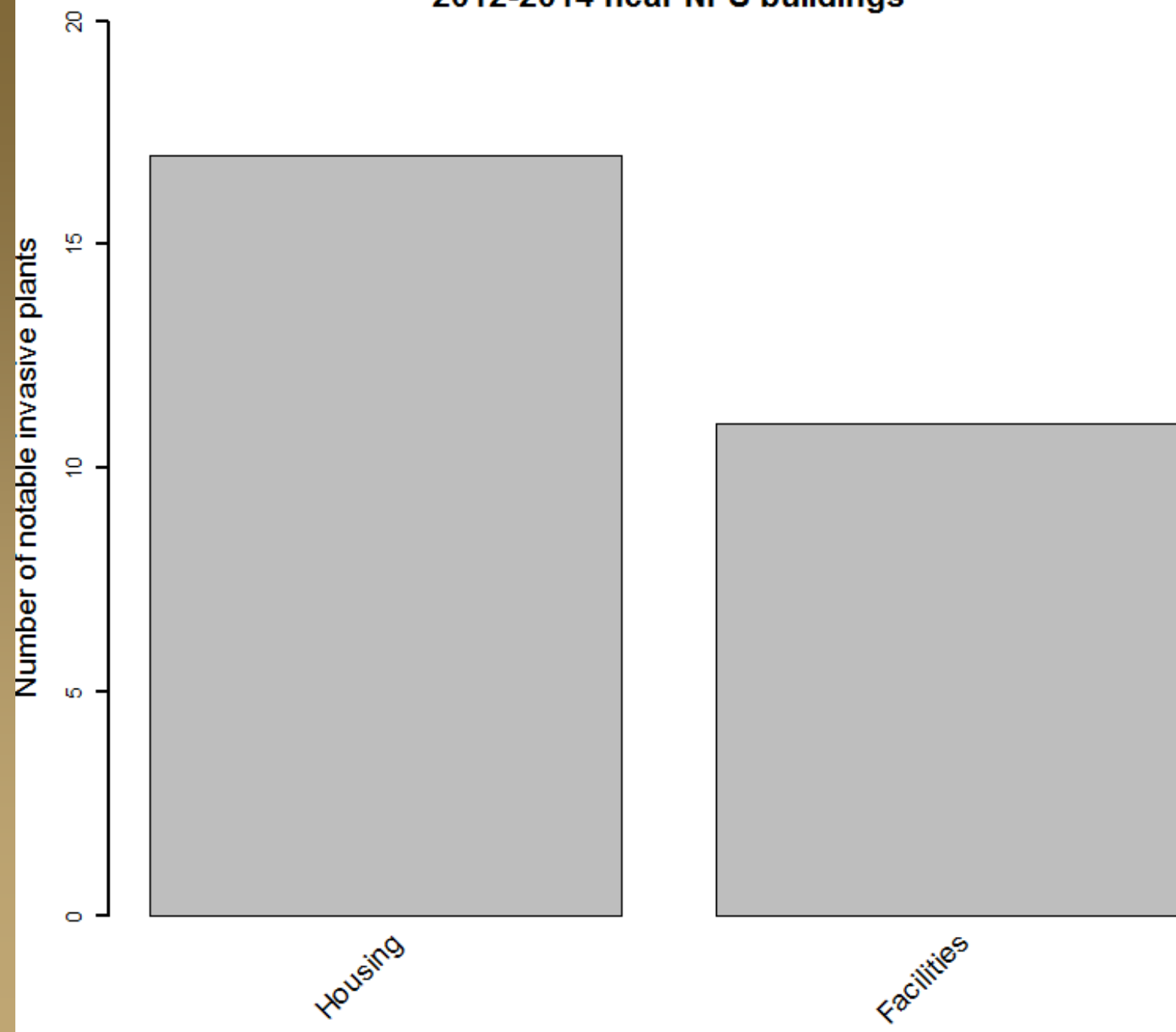
Adapted from
Brooks & Klinger
2009



Association of notable invasive plant occurrences 2012-2014



**Associations of notable invasive plant occurrences
2012-2014 near NPS buildings**





4 million visitors are not the problem

Publications

Go to: [Best Management Practices Manuals](#) | [Reports](#) | [Books](#) | [Brochures](#)

Best Management Practices Manuals and Guides

All reports may be downloaded as free PDFs. You will need to fill in a web form so we can track use of these manuals.

Prevention BMPs for Land Managers — This manual presents a set of voluntary prevention measures and ready-to-use checklists to help those managing wildlands, including BMPs for fire and fuel management.

Prevention BMPs for Transportation and Utility Corridors — These voluntary guidelines help to prevent the introduction and spread of invasive plants along transportation and utility corridors, where vehicular traffic, construction, and maintenance activities can introduce or spread seeds and other propagules through project materials and ground disturbance.

BMPs for Protecting Wildlife When Using Herbicides — This manual helps wildland managers further minimize the potential impacts to wildlife from herbicide applications, based on practices developed by those in the field and on the latest toxicology for particular herbicides.

Land Manager's Guide to Developing an Invasive Plant Management Plan — This comprehensive guide was created for land managers to use when developing invasive plant management plans. It lays out a step-wise, easy-to-follow process designed to be applicable at any scale.

Prevention BMPs for Central Sierra Tree Mortality Zones — This manual provides best practices for contractors and land managers in the Central and Southern Sierra to avoid the spread of invasive weeds during tree removal and the associated disturbance. The zipped file also includes a 1-page Plant ID for our selected set of priority invasive species, and a PowerPoint of the Tree Mortality BMP for education and outreach.

Prevention BMPs for Sierra Meadow Restoration — This 12-page guide describes best management practices to prevent weed and pathogen spread while restoring Sierra Nevada Meadows

BMPs for Non-Chemical Weed Control — This manual provides comprehensive descriptions of 21 commonly used non-chemical weed control techniques and of biological control agents for 18 weed species/species groups that will help you as a practitioner treat weeds more effectively.

Preparing for Wildland Fire: A Step-by-Step Guide for NPS Invasive Plant Managers — Wildfires – and wildfire response – present a significant risk for the spread of invasive plants. This guide describes steps that can be taken to avoid, minimize, or mitigate the introduction and spread of invasive species before and during wildland fire incidents. Although some protocols are specific to the NPS, the overall approach is generally transferable to other organizations.



Preventing the Spread of Invasive Plants:



Best Management Practices for Land Managers

3rd Edition

California Invasive Plant Council



Working Together Against Weeds

Working Together Against Weeds

- 2007
- three-day workshop at Pt Reyes
- Came up with the WTAW concept
- Interdisciplinary group is KEY
- One-day workshop at park – outside facilitators

Workshop Structure

- One day workshop
- Presentations – costs of control; how weeds get around
- Groups develop their own BMPs based on activities that occur at the park.
- Report presented to park leadership the following morning

Whiskeytown NRA
Working Together Against Weeds Workshop
May 25, 2023
09:00-3:30

Purpose: Understand the impacts that non-native invasive plant species have on native ecosystems and operations. Examine park operations/activities and identify potential sources for introduction and dispersal of harmful non-native plant species. Review available best management practices provided from existing sources such as CA Invasive Plant Council documents, WTAW working group; Identify any new BMPs that are needed to address park-specific weed introduction issues. Develop a detailed outline for design, adoption, and implementation of appropriate weed prevention BMPs into park operations.

Outcomes:

- Review introductory materials on impacts and ecology of invasive plants
- Introduce the major problem plant species at parks and introduce how weeds spread
- Review park operations and identify sources for weed introductions.
- Review existing BMPs to identify actions that may address weed introductions from park operations.
- Modify existing BMPs to fit park-specific needs.
- Identify roadblocks and solutions to implementation of necessary BMPs.
- Develop a broad outline for design, adoption, and implementation of BMPs into park operations.
- Assign responsibilities and timeframes for accomplishing action items described as outcomes of the workshop.

TIME	CONTENT	WHO/LOGISTICS
Day 1		
9:00-9:15 15 min	Welcome, Workshop Purpose & Outcomes, Agenda Overview, Logistics, Ground Rules*, Announcements	Facilitators
9:15-9:45 30 min	Background on Why Invasive Plants Are a Problem A short <u>powerpoint</u> on the fiscal and mission-related costs of invasive plants in general and in NPS in particular. Why is preventing invasions important? What do invasive species cost the park annually? What threats to resources and mission goals do invasive plants pose?	Steve B
9:45-10:15 30 min	Introduction to invasive plant issues in WHIS	Parks
10:15-10:45 30 min	How Weeds Spread: Key Ideas and Features for All Operations with Respect to Invasive Plant Prevention A short <u>powerpoint</u> looking at how invasives move in the environment. This talk will illustrate the key ecological processes to keep in mind in all operations as we seek to prevent invasive plant	Garrett D

Working Together Against Weeds

Working Together Against Weeds Workshop

Kaloko-Honokōhau National Historical Park

Pu'ukoholā Heiau National Historic Site

Ala Kahakai National Historic Trail

Pu'uhonua o Hōnaunau National Historical Park

August 30, 2022

Facilitators: Brent Johnson, Stacey Torigoe, Jeremy Gooding

Executive Summary

Background and Workshop Format:

This is the first Working Together Against Weeds (WTAW) workshop in Hawaii. There was an excellent turnout for the workshop with approximately 30 people in attendance. Kaloko-Honokōhau National Historical Park (KAHO), Pu'ukoholā Heiau National Historic Site (PUHO), Ala Kahakai National Historic Trail (ALKA), and Pu'uhonua o Hōnaunau National Historical Park (PUHO) each had significant participation and presence. Park staff included representatives from the divisions of Maintenance (Roads and Trails), Cultural and Natural Resource Management, and Interpretation. The facilitators were particularly grateful for the cooperation and involvement of Park Superintendents which demonstrated a commitment from park leadership.

Facilitators presented background material and park staff provided overviews of invasive plants issues at their respective parks. The first presentation focused on impacts of invasive species on resources and park operations and the second

Working Together Against Weeds is a one-day facilitated workshop designed to aid parks in developing site-specific best management practices (BMPs) that will reduce the risk of introduction and spread of invasive plant species. The workshop takes an interdisciplinary approach to developing BMPs.



Working Together Against Weeds

- Since 2018
 - Joshua Tree NP (CA)
 - Death Valley NP (CA)
 - Tule Springs NM (NV)
 - Kaloko-Honokōhau National Historical Park (HI)
 - Pu'ukoholā Heiau National Historic Site (HI)
 - Ala Kahakai National Historic Trail (HI)
 - Pu'uhonua o Hōnaunau Nat'l Historical Park (HI)
 - Whiskeytown NRA (CA)
 - John Day Fossil Beds NM (OR)



Working Together Against Weeds: Benefits

- increased buy-in
- realistic measures
- greater understanding of invasive plant management from other work groups
- Collaboration and communication within parks

