

Lana introduction, with Parks 8 years, worked in Santa Cruz and OC District, on the ground perspective

State main goal of presentation: Hope to convince you today to start thinking about early detection in your management area. Will provide some simple steps and practical examples to get you started.

EDRR means Early Detection Rapid Response

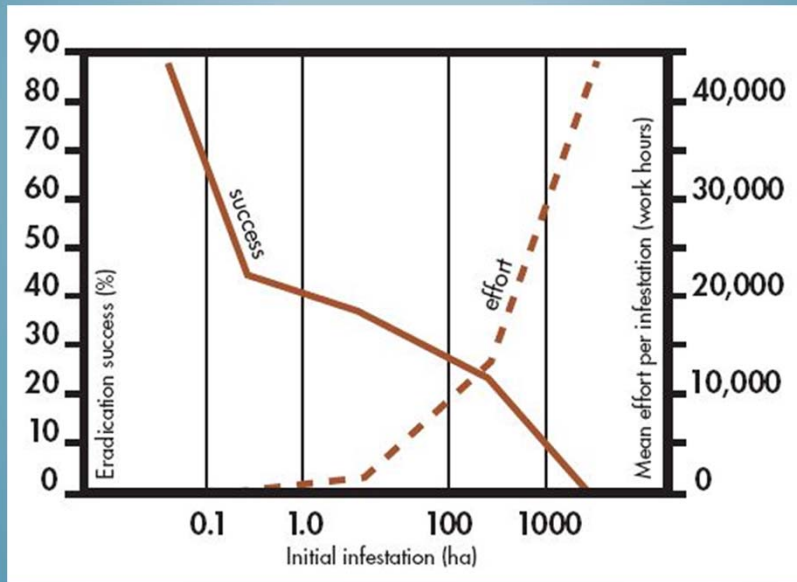
Topics:

- Developing State Parks EDRR planning and pilot project
- Local pilot project experiences and suggestions
- Future plans



Main points:

- Developing EDRR pilot program, starting small
- Chose two Districts to start with, 5 more will start next year
- Using methods throughout the system



Why do Early Detection? Both slides

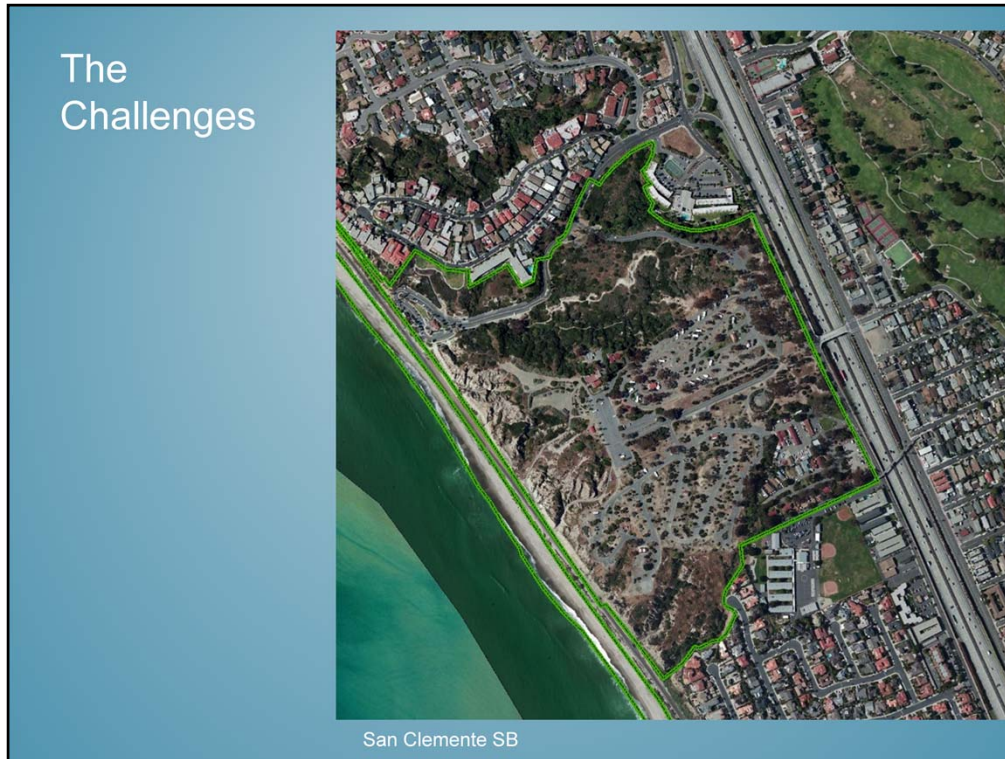
1) Early in invasion process

Main Point: Move to left side of curve. Early in invasion process.

How to move the organization from old to new thinking? Working to change an organizational paradigm is difficult.

2) Focus on small scale infestations, better chance of success

But, how to do this and be effective?



Main Point: Challenges

How do we convince management and ourselves to do early detection?

Challenges are many, but big benefits possible with shift in thinking

- Huge visitor use and innumerable vectors
- Large area with a small number of trained staff
- Hard to justify looking for more problems when you already have too much to do....

EDRR PILOT PROJECT GOALS

- Reduce invasive plant management costs over time
- Train employees outside natural resources and volunteers to detect new weeds
- Develop management framework and document effort

Main point: how can we implement this on a small scale to help in changing thinking and behavior?

One of the goals of this program is to reduce invasive plant management costs over time – by controlling new infestations when they are small.

Another goal is to train Parks employees outside Natural Resources, docents and volunteers in EDRR target species, **increasing the eyes on the ground** looking for new introductions.

A third goal is to provide a framework where Natural Resources employees are able to **set aside time and resources** to perform regular early detection checks in high priority areas, and document those efforts through use of track logs.

EDRR Pilot Project Methods

- What to look for?
- Where to look?
- How often to look?
- How much to spend?
- How to collect and manage data?
- What about Rapid Response?



Main point: EDRR program in 5 or 6 simple steps, questions we asked at the beginning, looked for a good model.....

What, where, when how and how much will it cost

Encourage use of Calweedmapper

Where to look?

How often to look?

How much to spend?


How to collect and manage data?

What about Rapid Response?




NPS Bay Area Model

Natural Resources Service
U.S. Department of the Interior
Natural Resources Program Center

Early Detection of Invasive Plant Species in the San Francisco Bay Area Network
A Volunteer-Based Approach
Natural Resource Report NPS/SFAN-NRR-2009-136



Plant-out-of-place
Canada Thistle

EXOTIC HERB
Canada thistle
(*Cirsium arvense*)

Description

- Erect perennial plant that grows 1-3 ft.
- Purplish lavender or white flowers 1/2-1 in across, numerous, almost without spines.
- Variably lobed lance-shaped leaves with spines along the margins; leaves "clasp" stem.
- Smooth to slightly hairy stems with no "wings".
- Young plants form a rosette (circular cluster of leaves).


Habitat

- Can grow in all but waterlogged soils.

Don't confuse with...
Musk Thistles which have:

- Larger flowers (2-3 in) with broad spines.
- Hairy leaves.

Image credits: From the NPS, USDA Botanical, www.invasive.org, www.nps.gov, www.nps.gov



Main point: What we learned from NPS from their 5-year program experience

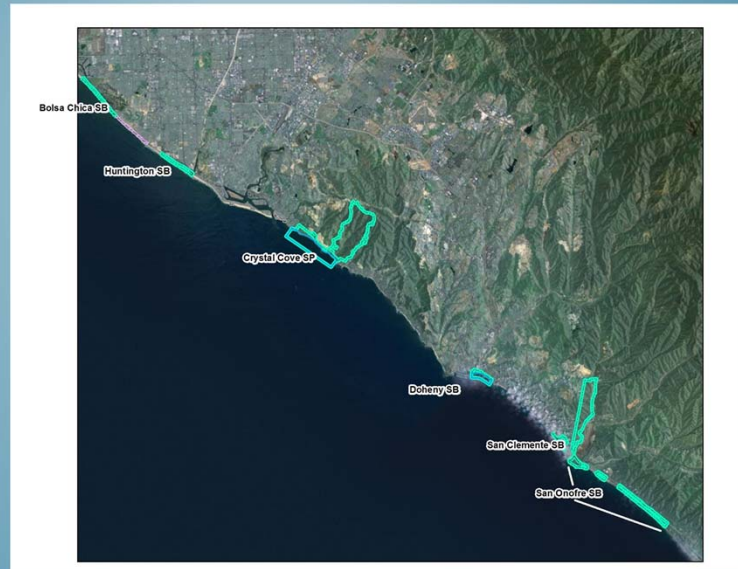
NPS started as volunteer training, now is mostly paid staff

Based on mapping by watersheds, systematic and funded over time

Covers many more species, based on larger budget

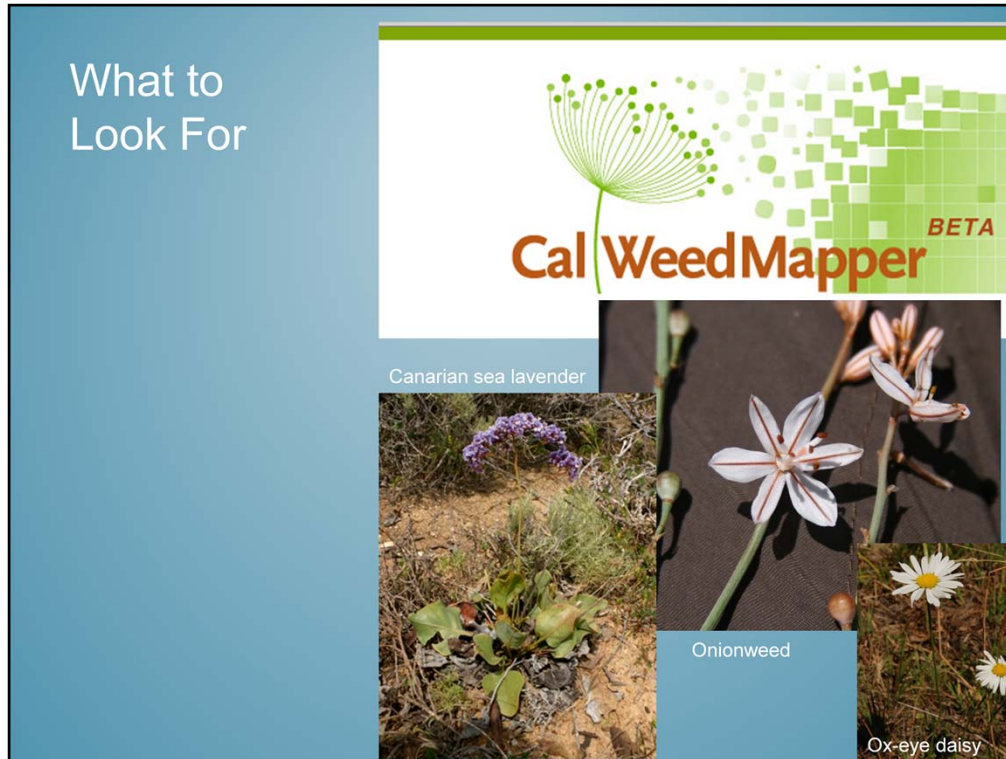
Staff who do ED monitoring are not the ones doing the RR

Orange Coast District



Main points: Highly used and urbanized, lots of vectors

- 6 parks
- 4,500 acres
- 8.5 million visitors annually
- 2 permanent and 2 to 4 seasonal staff for all natural resources work



Main point: how EDRR targets were chosen

Used Calweedmapper and Calflora

Plants that occur on beaches and in coastal scrub, not mountains

Meeting of local experts

Detection by non-botanists


Goal of 15 to 20 species max, Total of 18 chosen

No grasses or aquatic plants


Focused on fast-moving plants, rate of spread

EDRR Training Materials

Weed Alert! Tamarisks



Tamarisk (Tamarisk ramosissima)




Athel tamarisk (Tamarisk aphylla)

Tamarisks

(T. aphylla, T. parviflora, T. ramosissima)

Description

- Large perennial shrubs or trees
- Tiny flowers with white or pink petals
- Leaves small and scale-like
- Ground underneath plants sometimes white-salty
- Spread by wind, waterways and horticulture
- Native to Asia



Bloom Period Apr - Nov

Habitat Dunes, Scrub, Wetlands, Rivers, Desert Washes



Can be confused with...
Beach sheak (*Casuarina equisetifolia*) which has:


- Jointed needles
- Has cones not seeds
- No pink flowers


Image credits: Front and back: © Regents of the University of California
These cards were adapted from a design by National Park Service.

Tips to Help With Identification


Leaf Type


Simple  

Pinnate 


Clasping leaf base 


Leaf Arrangement

Alternate 

Opposite 

Leaf Edges

Smooth or entire 

Toothed 


Lobed 

Image credits: Front and back: © Regents of the University of California
These cards were adapted from a design by National Park Service.

Please Report Your Sightings!

Additional contacts for weeds found outside of State Parks:

California Invasive Plant Council (CAL-IPC) promotes California's ecology through science, education and policy. For more information on selected invasive species, visit www.cal-ipc.org

Calflora curates information on plants that grow wild in California for conservation, education and appreciation. Visit www.calflora.org

California Department of Food & Agriculture (CDFA) regulates noxious weeds. Visit www.cdffa.ca.gov/pests/02/

To report a noxious weed sighting, contact **Chad Kitch**,
C.D.F.A. Invasive Plant Technician
916-222-1150
chad.kitch@cdfa.ca.gov

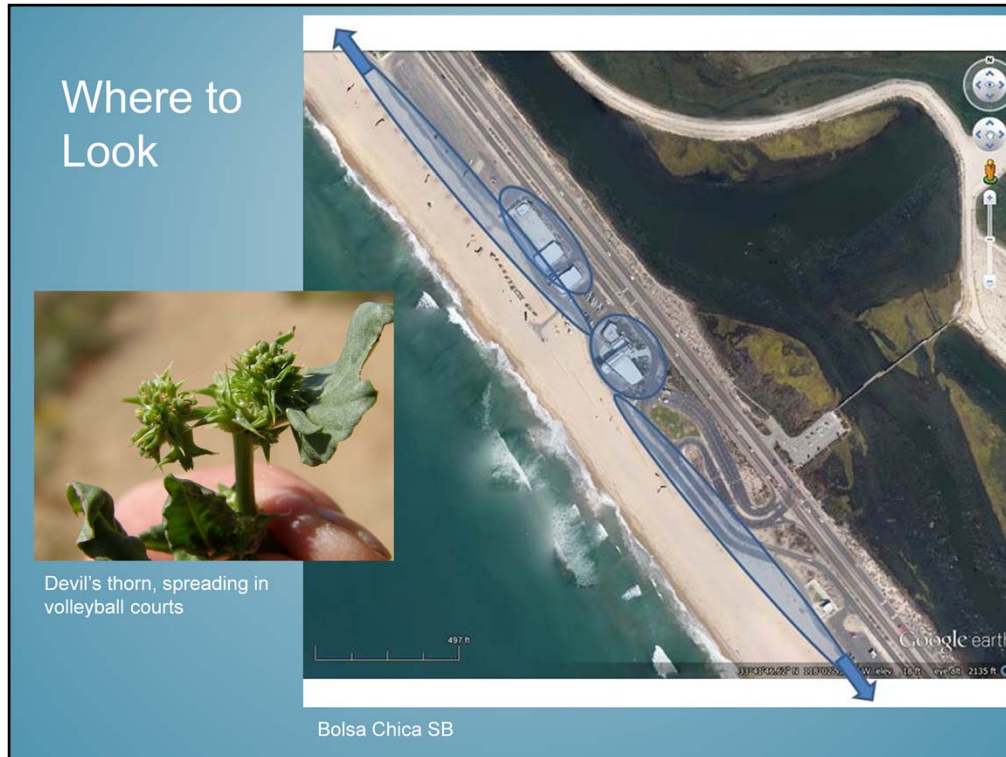
You may also contact your County Agricultural Commissioner or your local Resource Conservation District about newly detected invaders in your region.

Main point: go over the training cards with crew first

Tried to eliminate botanical jargon

Will add a scale for size as well as control icons in next set of cards

Will be available for use by others



Main point: focusing on roads, trails and facilities areas with high visitor use.

OC this is everywhere, but some districts this is small portion of total acreage

Started with roads and trails

Changed to around facilities and roads and trails within a set distance

Focused on highly used areas



Main points: using our existing platform but also cell phones and Garmin, GPS cameras, etc.

- Using existing technology – Trimble JUNO units
- Map points and track logs
- Also map short list of other managed weeds

Collecting tracklogs and points

Important to have methods in manual for training and implementation

Rapid Response



Main point: do it in 2 minutes or less, will see how this works

Focus on looking, not working (removing plants)

- Train crew on removal method – either pull or dig
- If a new population can be removed in 2 minutes do that
- If not, report to crew leader
- Add to yearly work flow management plan
- Add points to Calflora, feedback into Calweedmapper

What we Learned From Field Testing



Main point: Training and coordination is key

- Getting the GPS units calibrated and track logs set up
- Field crews not familiar with GPS
- Communication of search routes and geography
- Timing of year for searching
- Scheduling with other projects

Already Have a
Success Story!



Crystal Cove SP

Main point: Found Tamarisk spp. at Crystal Cove State Park, removed that day

Would not have been detected by crew without training

Unintended Benefits



Wilder Ranch SP

Main point: Benefits we did not anticipate, EDRR often chosen out of all other proposed volunteer projects

Volunteers want to help with this project!

Mention Santa Cruz successes with outreach

More eyes on ground is better

College class used smart phones to map and track locations

Trained docents and other staff in EDRR targets



Main point: Expanding pilot to other districts

- Adding 5 more districts in next 2 years
- Making training materials available
- Develop staff needs and budget estimates for searches
- Consider adding aquatic invasive plants
- Collaborate with other organizations

Success metrics over time, tracklogs for distance searched and number of points for EDRR finds



Main points: start small and scale up if possible

List, areas, schedule, training, repeat

- Pull the calweedmapper management report
- Partner with local State Parks efforts and Cal-IPC regional planning
- Check with your WMA for an EDRR list

QUESTIONS?



Sunset over the OC District