BAY AREA
EARLY DETECTION
NETWORK

2006 - 2007 Annual Report

THE BAY AREA EARLY DETECTION NETWORK

The Bay Area Early Detection Network is a collaborative partnership of regional land managers and invasive species experts. The BAEDN coordinates Early Detection and Rapid Response to infestations of invasive plants, proactively dealing with new outbreaks before they can grow into large and costly environmental threats. This "stitch-in-time" approach prevents the environmental and economic damage caused by these invaders; educates citizens regarding natural resource stewardship; and dramatically reduces the need for the planning and resources required to control large, established invasive plant populations.

Goals of the Bay Area Early Detection Network include:

❖ Have effective detection efforts covering the nine counties.

❖ Ensure that detections are supported with sufficient response funds to eradicate priority invaders while still cost-effective.

❖ Increase effectiveness and strategic nature of invasive plant work in the region.

❖ Involve and train citizen detection partners.

❖ Realize a coordinated system of regional Early Detection networks across all California.

Scope and approach of the Bay Area Early Detection Network
The 2005 California State Noxious Weed Action Plan states that "Early Detection is the single most important element in successful and economical eradication of new weeds before they become permanently established in new localities." The BAEDN addresses this need by coordinating state-of-the-art Early Detection efforts across the nine counties of the San Francisco Bay Area. The BAEDN supports detection on all lands whether public or private. BAEDN participants include researchers and technical experts who ensure it is based on sound science; natural resource professionals and agencies involved in land management; and trained citizens who help build the network and walk the trails of the region seeking harmful invasive plant occurrences.

The Bay Area Early Detection Network will:

- Identify the invasive plant species that most threaten the San Francisco Bay Area, and promote a list of these detection targets.

- Provide a user-friendly online database that standardizes reporting and tracking of priority invasive plant species.

- Develop detection protocols and reporting guidelines; promote recruitment and training of Detection Partners in the use of these tools.

- Prioritize occurrences for eradication; give eradication recommendations to responsible land managers; and provide assistance to ensure eradication of prioritized occurrences.

- Provide scalable templates for adoption by other regional Early Detection Networks, and encourage establishment of coordinated networks serving every region of California.

2007: BUILDING THE BAEDN

The Bay Area Early Detection Network was formed in 2006 by a Memo of Understanding which brings together partners from the nine counties in contact with the San Francisco Estuary: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Solano, Santa Clara, Sonoma counties. BAEDN partners work cooperatively to develop and implement an ecological and integrated approach to the early detection of harmful and noxious weeds, and the Rapid Response to these environmental impairments.

The BAEDN project was publicly launched in December 2006. This first partners meeting at the San Francisco Presidio's Fort Point attracted more than 50 attendees representing agencies and

organizations from throughout the Bay Area. During the full-day workshop, partners presented updates on their current Early Detection efforts and needs, shared information regarding Early Detection networks in other states, and discussed research and technical innovations available to support such efforts. Following presentation of the BAEDN vision, participants refined the vision through focused discussions, identified additional partners, defined the project scope, and agreed upon strategies for building a robust and efficient Early Detection Network.

Growing BAEDN.
The year 2007 marked the first full year of the BAEDN project, and was a year of very strong growth. BAEDN partners presented the project at numerous professional conferences and public meetings, including the California State Weed Management Areas conference, membership meetings of the Audubon and Native Plant societies, and workshops directed at private ranchers. This very successful outreach campaign met with strong interest, and the project that began April 2006 as a collaboration between Daniel Gluesenkamp and Andrea Williams has grown into a broad partnership comprising more than 50 of partners and more than a dozen agencies and organizations. Current partners include citizens, researchers, land managers, agencies, resource conservation personnel, and environmental organizations from throughout the nine county Bay Area. This partnership brings together skills and expertise for the purposes of identifying, mapping, planning, monitoring, training, and conducting the research required for effective Early Detection and Rapid Response programs.

Structuring BAEDN.
As the size and diversity of the BAEDN group has grown, we have established specialized committees to structure the effort. The Steering Committee is a group of ten to fifteen participants who are responsible for making decisions regarding program direction, organizational structure, and staff direction. Committee members have been selected to ensure geographic and functional representation. The Advisory Committee is a group of approximately 20 participants, representing the geographic and background diversity of the BAEDN stakeholders. Advisors decide broad guidelines for allocation of Rapid Response funding and develop core components of BAEDN. Advisors are expected to liaison with local organizations, WMAs, public, and other partners; contribute technical expertise; and support and participate in local trainings and capacity building.
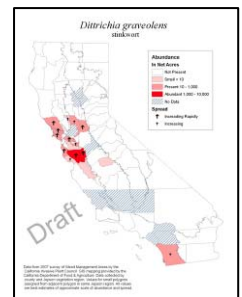
2007: Building the BAEDN

Technical development.
Working with partners from throughout California and across North America, the BAEDN project has made important progress toward developing the technical infrastructure of the network.

A flexible and user-friendly <u>occurrence reporting database</u> is key to involving professional and volunteer partners in region-wide detection efforts. In the past year, technical advisers evaluated multiple options for the BAEDN database, ranging from adopting existing databases to constructing a

new database customized for this network. Committee members ultimately decided to provide funding to the Bugwood Network to support porting of their EDDMapS occurrence reporting database for use in California. This database has a feature rich back end which supports user-friendly Google maps reporting interfaces. The BAEDN version of this database will be populated with invasive plant species lists for all of California to streamline establishment of additional Early Detection networks throughout the state.
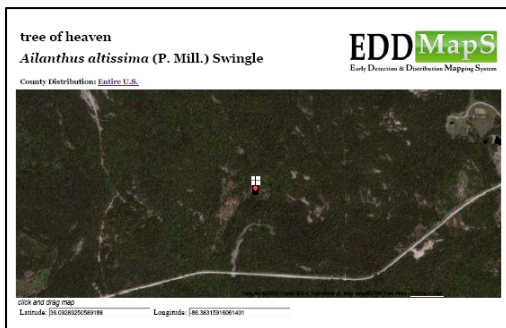
<u>Species prioritization and mapping</u> by the California Invasive Plant Council (Cal-IPC) is serving as a pilot for prioritization and mapping that the BAEDN will conduct in 2008. Cal-IPC has completed their initial county weed survey, in which county Weed Management Areas provided data on species presence/absence, prevalence, and rate of spread. The BAEDN coordinator, working with the technical advisory committee, will use Cal-IPC invasive plant prioritization and occurrence data in conjunction with prioritization systems developed for the National Park Service to a list of priority detection species for the nine county project area.

<u>Early Detection protocols</u> completed in the past year by Andrea Williams and colleagues in the National Park Service will form the basis a protocols used by the BAEDN project. These detection protocols are designed for use by professionals and by volunteers, and include plant identification cards to support field detections. NPS volunteers are currently being trained to use detection protocols and this training will ensure that protocols adopted by BAEDN next year are clear and effective.

Funding and staffing.
In the past year, the BAEDN project was awarded generous support from the National Fish and Wildlife Federation (NFWF) and the California Department of Food and Agriculture Weed Management Area program (CDFA). A request for funding from the United States Fish And Wildlife Service Coastal Program was recommended to the final level but ultimately not selected for funding. NFWF funding supports a project coordinator to implement all of the core BAEDN activities and provides funding for the online occurrence reporting database. CDFA funding supports development of detection protocols, training for partners and volunteers, and detection in the north bay. Both grants include funding for Rapid Response to eradicate prioritized occurrences. The CDFA has also awarded funding to Napa WMA and San Francisco WMA to conduct comprehensive invasive plant mapping and prioritization within the two counties, and results of that work will be part of the BAEDN project.

2008 OBJECTIVES

BAY AREA EARLY DETECTION NETWORK 2008 - 2009

2008 is the year in which the BAEDN project completes system development, implements Early Detection throughout the San Francisco Bay region, and celebrates the landmark eradication of the first of many priority invasive species occurrences.

The BAEDN project coordinator will lead these efforts and will coordinate partner participation to ensure that the network launch is successful. Hiring the BAEDN coordinator position is the primary objective for the coming year. To achieve this, the BAEDN steering committee will:
- Identify the optimal location for housing the BAEDN coordinator,
- Complete the coordinator work plan and staff supervision structure,
- Advertise the position, review applications, and hire the BAEDN coordinator.

Major deliverables to be pursued by the coordinator in 2008 include:
- Oversee completion of the occurrence reporting database. This includes working with Bugwood Network to establish the California node, and coordinating testing prior to public launch.
- Coordinate selection of an invasive species prioritization system which is based on a transparent and scientifically sound algorithm.
- Data mine existing occurrence records to populate the occurrence reporting database with currently available data. This includes adding occurrence reports from CalFlora, university herbarium records, site-specific species lists, and information from local botanical experts.
- Refine detection protocols developed for NPS lands for use across the BAEDN nine counties.
- Coordinate workshops in which BAEDN detection partners are trained in detection protocols so that they can train volunteers and other eyes on the ground.
- Prioritize reported occurrences to identify the most urgent eradication Rapid Response needs.
- Allocate eradication support funding as determined by BAEDN technical advisory committee.

BAEDN committee members and other partners will be actively involved in accomplishing this very ambitious set of objectives. They will also pursue ongoing funding to continue the BAEDN project.

The BAEDN partnership includes numerous representatives who are actively engaged in management of natural areas, and these partners will ensure that regional Rapid Response capacity grows in synchrony with BAEDN's capacity to identify eradication targets. For example, some county Weed Management Areas (WMAs) are developing proposals for organized Rapid Response programs. While the nine county region is appropriate for a coordinated Early Detection network, Rapid Response networks best operate at more local scales. County WMAs are the appropriate scale for Rapid Response operations. Such operations also provide a focus that can improve county WMA vitality, and provide a highly fundable project that supports existing WMA priorities; funding for such Rapid Response programs is likely to be available from CDFA in the coming year and in some cases may be supplemented by matches from County Boards of Supervisors.

The objectives for the coming year are achievable and will be the beginning of a revolution in the protection of San Francisco Bay Area's natural diversity. We look forward to the California of 2018, in which every region has a coordinated Early Detection Network and new outbreaks of destructive invaders are detected quickly and eradicated by citizens and professionals working together.

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Please join the network!
The BAEDN needs your expertise and your eyeballs.

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the Bay Area Early Detection Network, please contact:

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