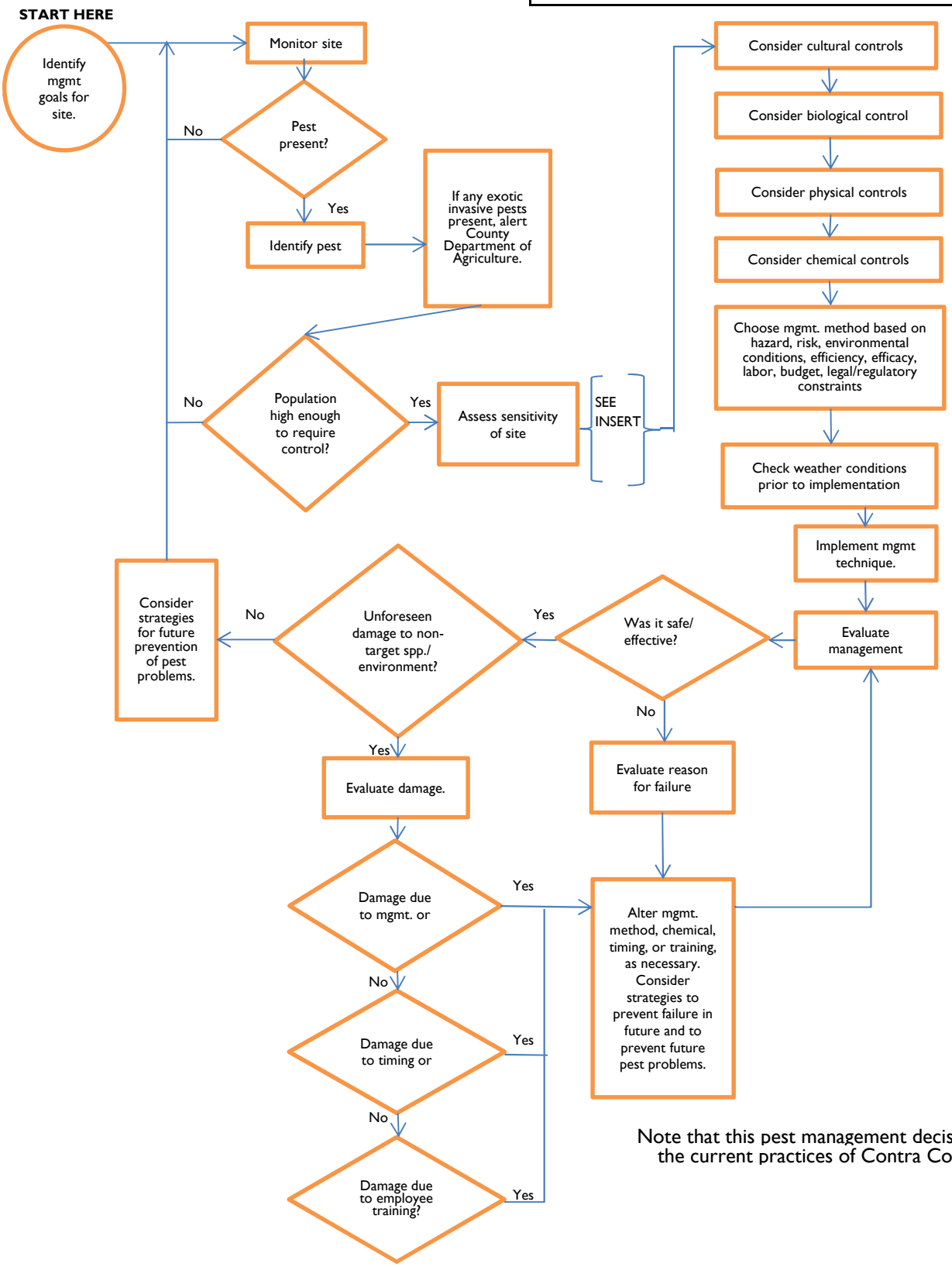
General Integrated Pest Management Decision Tree

The overall goal of this process is to choose the least-toxic management method that is effectve and economically viable.



Note that this pest management decision tree documents the current practices of Contra Costa County staff.

Check list for Cultural Controls

- Is it possible to use education to alter sensitivity to or spread of pest problem?
- Is it possible to use education to alter habitat and availability of food for pest?
- Is it possible to use education to prevent pest entry?
- Are the plants with pest problems suitable for landscape site?
- Is it possible to alter plant care to reduce or eliminate pests?
- Is it possible to replace or completely remove plants with pest problems?
- Is it possible to modify the environment to improve plant health?
- Is it possible to modify the environment to reduce or eliminate pests?

Check list for Bio Controls

- Is an organism available for the target pest?
- Is it effective for the target pest (consider theoretical and historical)?
- Are there time constraints on the management of the target pest?
- How compatible is the organism with other management techniques?
- What is the cost of implementation?
- Can the budget accomodate this management technique?
- Is staff/equipment available for implementation?
- What is the proper timing for releasing this organism?

Check list for Physical Controls

- Is it effective for target pest (consider theoretical and historical)?
- Is it suitable for the site and life stage of pest?
- What are the risks to staff safety of implementing the technique?
- Can the budget accomodate this management technique?
- Is staff/equipment available for implementation?
- Is this technique appropriate for the time of year/weather?
- Is there potential for damage to non-target plant spp.?
- Is there potential for damage to non-target animal spp.?
- Is there endangered spp habitat present and will the technique affect that?
- Is there a potential for intro or spread of noxious weeds by using this technique?
- Is there a potential for erosion?
- Are there time constraints on the management of the target pest?

Check list for Chemical Controls:

- Is it effective for target pest (consider theoretical and historical)?
- What is the toxicology of the pesticide?
- What are the label restrictions?
- Is the time of year/weather compatible with use of the chemical?
- Is it suitable for the site and life stage of pest?
- What is the proximity of sensitive sites, such as water, E/T spp. habitat, parks, schools?
- What is the environmental persisitence of chemical?
- Is there potential for damage to non-target plant spp.?
- Is there potential for damage to non-target animal spp.?
- Can the problematic aspects of the chemical be mitigated or eliminated?
- Are any new chemicals available?
- Can the budget accomodate the use of this chemical?
- What is the role of chemical in herbicide resistance mgmt?

Other factors to consider:

- Where do physical (and possibly cultural) controls make the most sense?
- Where is it most cost effective to use physical controls?
- Where can herbicide use be reduced the most by substituting physical controls?
- Where can grazing save wear and tear on employees?
- Are there areas where using physical controls makes it possible to treat a larger area more efficiently than with chemicals?
- Where and under what conditions is it most dangerous for employees to work?

Note that these choices are evaluated for planning purposes as much as 1 or 2 yrs. in advance. Some things require considerable lead time.

Things to consider when evaluating management:

- Were fire regulations met on time?
- Did mgmt increase air pollution?
- Did mgmt increase/decrease
  - fire/flood hazards?
  - erosion?
  - biodiversity?
  - herbicide resistance?
  - customer complaints?