Integrated Pest Management: Standard Practice vs. BMP's

Issue	Standard Practice	Best Management Practice	Optimal Practice
General use of pesticides	Pesticide use as first strategy in combating pests	Use management practices that reduce pesticide applications. If pesticide use is needed, use pesticides with low mobility and persistence. Reference the San Francisco Pesticide Hazard Screening List. Perform Universal Notification as appropriate.	Do not utilize chemical pesticides
	Use of pesticide dusts, wettable powders, and fine liquid sprays.	Use management practices that reduce pesticide applications. If pesticide use is needed, use pesticide formulations that reduce drift losses such as granules and pellets. Reference the San Francisco Pesticide Hazard Screening List. Perform Universal Notification as appropriate.	Do not utilize chemical pesticides
General use of spray pesticides	No consideration given to application method.	Avoid use of pesticides that require spray application. If no non-spray alternatives exist, adjust spray equipment to give the range in droplet size for optimum coverage of the target.	Do not utilize chemical pesticides.
	Blanket application of spray pesticide	Avoid use of pesticides that require spray application. If no non-spray alternatives exist, release pesticide spray as close to the target as possible.	Do not utilize chemical pesticides
	No consideration given to weather when applying spray pesticide	Avoid use of pesticides that require spray application. If spray pesticides must be use, never apply during weather conditions that may cause significant drift of small droplets away from the spray target or prior to intense rainfall events.	Do not utilize chemical pesticides

	No consideration given to reduction in potency	Avoid use of pesticides that require spray application. Add modified vegetable oil adjuvant to herbicide mixes, when recommended, to increase the effectiveness of the herbicides and reduce the total active product	Do not utilize chemical pesticides
Chemical herbicides	Reliance on Chemical herbicides used in accordance with their EPA-approved label directions.	Use biological control of pests can supplant chemical herbicide applications (e.g goats, sheep, several species of flea beetles etc) Utilize native / adaptive plantings able to outcompete unwanted species	Do not utilize chemical pesticides
Action Thresholds	Premature determination of pest problem	Set a point at which pest populations or environmental conditions indicate that pest control action must be taken. Sighting a single pest doesn't necessarily mean control is needed.	
Monitor and Identify Pests	Pesticides applied without consideration to real threat	Not all insects, weeds, and other living organisms require control; innocuous species should be dealt with via non-chemical means	Identify beneficial organisms
Animal controls	Lethal traps	Utilize live traps, animal handling gloves, or hand-operated devices (e.g. catchpoles vise-grips etc)	Utilize live traps, animal handling gloves, or hand-operated devices (e.g. catchpoles vise-grips etc)
Disposing of Capture animals	Extermination	Release or relocation	Release or relocation

Repellents	Rodenticides, Fumigants, Immobilizing Agents	Non-toxic or physically invasive visual, auditory or olfactory repellants	Same as BMP
General preventive pest management	Reactive strategies	Proactive strategies: One-Way Doors allow an animal to exit but not reenter a building	Same as BMP
Pest control: Ants	Spray insecticides	Caulk actual and potential entryways with a low-voc, caulking compound. Weather-strip around doors and windows	Same as BMP
Pest control: Cockroaches	Chemical insecticides in accordance with their EPA-approved label directions.	Utilize physical controls such as screening vents and windows, sealing runways, vacuuming and trapping	Same as BMP
Pest Control: Mice and Rats	Poisonous rodenticides used in accordance with their EPA-approved label directions.	Seal all holes in building, ac units, sewer pipes, drains. Install rat-proof barrier between landscaping and building. When trapping is required, use snap traps.	Same as BMP
Pest Control: Yellowjackets and Hornets	Chemical insecticides in accordance with their EPA-approved label directions.	Trapping with a sturdy trap and an attractive bait can significantly reduce yellowjacket numbers if a sufficient number of traps are used	Same as BMP
Pest Control: Yellowjackets and Hornets	Chemical insecticides in accordance with their EPA-approved label directions.	A nest can be destroyed through physical removal (vacuuming)	Same as BMP
Pest Control:	Chemical insecticides in accordance with their EPA-approved label	Eliminate hidden water--Stumps, pipes, gutters, and equipment exposed to the environment should be filled, capped, plugged, or covered	Utilize natural alliances: Several types of birds, bats,

Mosquitos	directions.		dragonflies, frogs and toads can help keep the mosquito population in check.
	Chemical insecticides in accordance with their EPA-approved label directions.	Dispose of any litter that could hold water for a day or more. Trash receptacles should be water-tight and "varmint-proof".	Perform and record weekly dipping for mosquito larvae
Lawns: weed control	Chemical controls in accordance with their EPA-approved label directions.	Utilize biological controls or botanical insecticides such as neem oil, and pyrethrin.	Reducing Stress on Lawns will decrease need for chemical fertilizers and herbicides. Maintain healthy soils, plant appropriate grass species reduce soil compaction, use aeration, keep thatch to a minimum and raise mowing heights.
General landscape maintenance	Excessive focus on problems encountered in landscapes or gardens as attributable to insects, mites, or disease rather than emphasizing plant health and proper horticultural practices	Focus on determining soil health, appropriate watering, etc and study your landscape ecosystem both prior to and after planting or transplanting.	Same as BMP
		Use proper planting techniques when installing vegetation. Improve the soil with organic matter and mulches.	Same as BMP
		Plant a diversity of species so that a single pest problem will not devastate your landscape.	Same as BMP
		Include “insectary” plants in your landscapes. These are plants that attract and feed beneficial insects with their nectar and pollen	Same as BMP
	Only use pesticides in	When using pesticides, only use pesticides on San Francisco	Do not use chemical

	accordance with EPA approved label directions	Pesticide Hazard Screening List.	pesticides
Landscape weed reduction	Chemical controls: Herbicides used in accordance with their EPA approved label directions	Utilize plant selection, planting techniques, and cultural practices so that desired vegetation grows so densely and vigorously that weeds are crowded out.	Same as BMP
		Use of string trimmers and mowers are very effective weed control techniques.	Non-mechanized weed reduction tools including hand pulling
		Utilize competitive interplanting. When shrubs or groundcovers are installed, the spaces between individual plants are often colonized by weeds before the ornamentals can spread and shade them out. These weed habitats can be eliminated by overseeding newly planted areas with fast-growing annual flowers	Same as BMP
		Eliminate weed habitat by creating a “mow strip” under and immediately adjacent to fence lines can solve a common weed problem.	Same as BMP
		Extensive mulching to exclude light from the soil, thus limiting weed seed germination. Mulches can be composed of organic materials (compost, wood chips, etc.), stones or gravel.	Same as BMP
Wood Damaging Pests	Contractor provides on chemical treatment services	If contracting service, choose a company that is willing to provide a monitoring services for a fee that is separate and distinct from any treatments.	Utilize termite-detecting dogs
	Chemical pesticides used in accordance with their EPA approved label directions	Use non-chemical treatments including: Heat (Drywood Termites, Powderpost and Wood-Boring Beetles), Electricity (Drywood Termites) and Extreme cold / liquid nitrogen (Drywood Termites)	Reduce the moisture level of the wood by ensuring proper drainage under buildings, improving irrigation or landscape practices to decrease water collection near buildings, and eliminating direct contact between wood and soil.

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