## **Tree and Plant Health Monitoring Form**

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Date: Sheet of

Observer: First Name:		Last Nan	ne:	
Address:		City:		Zip:
Phone:	Email:		Witness:	
Site ID:		Subunit:	County:	
Visit Planned? [] ves [	] no Visit #: GPS (	Lat/Long) in Decimal	Degrees: N	W

Species and Symptoms Observed: At least one indicative symptom (bolded) under Symptoms must be present (checked), otherwise the symptom level is "0". If multiple species are affected, data from at least two plant families (e.g., oak, redbud) are preferable. Use back of form and notes to record additional affected species.

	Species 1	photo {	}	Species 2	photo {	}	Species 3	photo {	}
Common (or scientific) name									
approx. number observed									
% foliage affected: 1-25, 26-50, 51-75, 76-100									
average and range of symptoms									
SYMPTOMS – Mark "X" if Present			-						
Leaves: curled or cupped									
sideways or upside down (epinasty)									
irregular margins									
strapped									
tattered									
twisted, deformed, and/or stunted									
veins bleached and/or parallel									
Shoots: elongated, coiled, and/or bent									
growth suppressed and deformed									
Leaves: chlorotic (yellowed)									
necrotic (brown/black areas)									
2 <sup>nd</sup> growth									
Trees: epicormic branching									
dieback									
death									

Notes: Any additional notes. (e.g., other affected species, known sensitive species NOT affected, insect damage, severe drought present, etc.)

Layers: Check for affected layers, strikethrough if layer is absent: [] Overstory [] Understory [] Ground layer						
Geographic Extent of Observed Symptoms: (check and complete only one with "best-fit")						
[ ] LARGE (>1 acre) Type: (e.g., upl. forest) Approx: sampled acres affected acres						
[ ] SMALL (<1 acre) Type: (e.g., yard, school, park) Approx. # trees affected						
[ ] LINEAR Type:(e.g., fencerow, edge of woods) Approx. length (indicate ft or miles)						
OPTIONAL Symptom Pattern and Land Use: Record pattern of symptoms and land use data on Page 2 of form, (see						
guidelines).						

# Tree and Plant Health Monitoring Form

Date:

Species and Symptoms Observed Continued:

	Species 4 photo { }	Species 5 photo { }	Species 6 photo { }
Common (or scientific) name			
approx. number observed			
% foliage affected: 1-25, 26-50, 51-75, 76-100			
average and range of symptoms			
SYMPTOMS – Mark "X" if Present			
Leaves: curled or cupped			
sideways or upside down (epinasty)			
irregular margins			
strapped			
tattered			
twisted, deformed, and/or stunted			
veins bleached and/or parallel			
Shoots: elongated, coiled, and/or bent			
growth suppressed and deformed			
Leaves: chlorotic (yellowed)			
necrotic (brown/black areas)			
2 <sup>nd</sup> growth			
Trees: epicormic branching			
dieback			
death			

GPS Guidance: You can obtain GPS points from a GPS unit in the field or Google Earth later. GPS data in degrees/minutes/seconds format can be converted to decimal degrees using free on-line converters.

### Symptom Ratings

0 = none observed 1, 2 = slight 3, 4 = light 5, 6 = moderate 7, 8 = severe 9, 10 = extreme

### Layers

Overstory = > 30' Understory = 10-30' Ground = < 10'

### Symptoms

- Curling or Cupping (leaf edges up or down)/or whole leaf curled)
- Irregular margins (abnormal scalloped, pointed, or wavy edges)
- Epinasty (leaf petioles twisted; blades sideways or upside down)
- Strapping (abnormal leaf lengthening)
- Tatters (blade tissue missing at edge and/or between veins)
- Twisted, deformed &/or stunted (blade twisted, lobes irregular, surface irregular, or leaf stunted.)
- Shoot elongated, coiled, or bent (generally most visible at leaf out, often many co-occurring leaf symptoms)

- Shoot growth suppressed and deformed (failure to fully develop, usually many co-occurring leaf symptoms)
- Chlorotic (yellowish, whitish leaves)
- Necrotic (browning/blackening often at leaf edges)
- Epicormic branching (twig bunches sprouting from large branches or trunk)
- Death (whole tree death after leaf out)
- Dieback (whole branches dead after leaf out)
- Second growth (new leaf growth at twig end emerging after 1<sup>st</sup> leaf flush; may be normal or injured, especially oak