To: Mei Ling Hui – Coordinator Urban Forest Council
Fr: Mark Sustarich – Forester, San Francisco Public Utilities Commission
Re: Response to pine pitch canker questions for UFC Oct. 27, 2009 Meeting

How is pine pitch canker (PPC) affecting trees within your management area and how serious are these effects (i.e. how many trees, how much in needed funding, what percentage of your canopy do these trees represent, etc.)?

PPC is affecting most of the Monterey pines managed by the SFPUC-CDD (City Distribution Division). This area includes; reservoirs, pump stations, rights of way (ROWs) and open space located within the confines of San Francisco. The disease can progress slowly by killing the terminal growth, which may eventually spread to the entire tree, or quickly turn the tree brown as if over night. If the dead trees are allowed to stand the wood decays rapidly, soon becoming a public safety issue. PPC is responsible for the majority of tree removal that we must do. We have removed approximately fifty trees this year and assume there is a need to remove many more in the years to come (since 2001 PUC has removed well over 250 Monterey pines within the city limits).

The cost for removal is dependent on numerous factors including; size of the tree, location in reference to utilities, public access, buildings and vehicle traffic. The removal cost per tree can range from $500.00 (rarely) to $6,000.00 or more. A figure of $10,000.00 is a realistic cost under certain conditions, especially where removal is difficult due to roads, pipelines, houses etc. Removal due to emergency conditions can inflate this cost significantly. This can vary depending on whether or not the removal is done by city staff, or a private contractor. It is anticipated that the total costs will run into the hundreds of thousands of dollars, quite likely millions by the time any reforestation is accomplished.

The percentage of the canopy varies by location from approximately 0% - 90%. The total canopy cover and species composition has not at this time been determined for all CDD sites within the city limits.

How are you currently managing infected trees?

In general we wait until the trees are obviously not going to recover and can be considered dead. Depending on the location we may have to post the tree for removal, secure "no parking", traffic control, lane closures and then laboriously rig the tree out piece by piece, chipping as much of the material as possible into a dump truck. This leaves the larger pieces (logs) that have to be hauled away (sometimes at no small expense). Rarely do we have the luxury of cutting a tree at the base and dropping it in its entirety, as if we were performing a logging operation. This impacts the cost dramatically. Trees in the vicinity of pipelines create an additional problem as they must be removed very carefully as an impact caused by falling trees, or parts of trees, can damage a pipeline, putting it out of commission for an extended period.

How would you like to be managing them, if current management practices are not what you consider ideal? If current practices are not what you think ideal, where is the disconnect.

We would prefer to remove trees declining from PPC before they lose most of their needles. This would require more public education as printed in the Examiner's October 25, 2009 article "City pines in losing battle with tree disease". Often the public questions our reasons for removing trees, and sometimes even the best crafted response is not acceptable to individual citizens. Removing trees prior to the point of decay would help mitigate safety and liability issues both for the public and the crew removing the tree. Part of the education of the public must include information about the SFPUC's Vegetation Management Policy, vis a vis rights of way and critical water delivery facilities. In some cases we are also governed by state laws and regulations as to whether or not trees are even allowed to exist at certain sites.

The disconnect in part is due to the fact that there is no current remedy for PPC. Monterey pine, as a species, has been widely planted in the San Francisco area as a well adapted and prominent feature of the landscape. They have been widely planted within the City of San Francisco for more than 150 years. Many individual specimens are well past maturity and would likely become a public hazard even without the presence of PPC. Indeed the age of Monterey pines within the urban forest, plus a lack of genetic diversity are likely contributing to the problem that PPC has created. PPC is shattering the mindset of many people who believe that trees are extremely long living and will endure forever. More research is required before a treatment can be developed, which could prevent PPC. Resistant strains of trees are available, but it may be too early to determine their viability, given that the strain of fungus that causes PPC could mutate and infect varietals that currently appear to be resistant. In the short run our landscape will be absent the presence of mature Monterey pines which we have so grown accustomed to. Additionally there is some reason to fear the possibility that the fungus could opportunistically mutate enough to infect other species of evergreens (the spread of sudden oak death, also a fungus, to many other species is an example of what could transpire).