TO: HONORABLE CITY COUNCIL  
FROM: CITY MANAGER  
DEPARTMENT: PUBLIC WORKS  
DATE: APRIL 12, 2004  
SUBJECT: APPROVAL OF CHANGES TO FLOOD HAZARD REGULATIONS (PALO ALTO MUNICIPAL CODE CHAPTER 16.52) PERTAINING TO THE REVIEW OF IMPROVEMENTS TO EXISTING STRUCTURES IN THE SPECIAL FLOOD HAZARD AREA

REPORT IN BRIEF

In Spring 2000, the State Department of Water Resources (DWR), acting as the Federal Emergency Management Agency’s (FEMA) contract agent, conducted an audit of the City of Palo Alto’s floodplain management practices. The audit identified a deficiency in the City’s process for reviewing building permit applications for structures in the FEMA-designated floodplain. Specifically, the auditor challenged the method used by City staff to determine whether an individual building project constitutes a “substantial improvement” subject to the City’s Flood Hazard Regulations. The audit report included a requirement that the City modify its permit review methodology to bring it into compliance with National Flood Insurance Program (NFIP) standards.

In response to the audit findings, staff is proposing to clarify the process used to identify “substantial improvements” by adding a definition for the term “market value” to the Municipal Code and by revising the methodology for determining the market value of existing structures and screening building permit applications for projects in the floodplain. In addition, staff recommends clarifying some additional floodplain management issues, such as health and safety exclusions from the Flood Hazard Regulations, crawl space construction standards, and the prohibition of new or expanded basements. These issues have been problematic for staff and building permit applicants due to ambiguous or missing language. Lastly, staff recommends that the exemption from the Flood Hazard Regulations for historic structures be extended to locally-designated historic structures.

This report describes the public outreach meetings conducted by staff to inform and solicit input from those individuals and businesses potentially impacted by the proposed
regulation changes. Staff summarizes the comments and concerns made by participants during the meetings and provides responses for the key issues raised. The report also describes the potential consequences of non-compliance with the audit requirements.

**RECOMMENDATION**
Staff recommends that the Council approve and adopt the attached ordinance (Attachment A) revising the City’s Flood Hazard Regulations (Palo Alto Municipal Code Chapter 16.52). The ordinance adds a definition for the term “market value”, an exemption from the Regulations for locally-designated historic structures, and language to clarify problematic issues regarding health and safety exclusions, crawl space construction standards, and basement prohibition in the existing Regulations. Staff also recommends that Council approve a revised cost valuation methodology for determining whether building projects modifying existing structures constitute a “substantial improvement” that must comply with special floodplain construction standards.

**BACKGROUND**
Historically, the nation’s private insurance companies have been unwilling to offer flood insurance, due to the potentially catastrophic level of claims from even a single major flood. To remedy this situation, Congress established the National Flood Insurance Program (NFIP) in 1968 to provide flood insurance underwriting. NFIP-sponsored flood insurance is made available to residents and businesses in communities that elect to participate in the program. In return, in order to reduce its level of risk, the federal government imposes requirements on the participating community, including the codification of federal floodplain management regulations into local ordinances. Council first incorporated the federal requirements into the Palo Alto Municipal Code (PAMC) in 1979, by adopting PAMC Chapter 16.52, “Flood Hazard Regulations.”

City staff is responsible for enforcing the special building requirements contained in the Flood Hazard Regulations. These requirements apply to new construction and “substantial improvement” of existing structures within a Special Flood Hazard Area (SFHA), the area subject to flooding in the one percent (100-year) flood (see map – Attachment B). A “substantial improvement” is defined as “any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the existing structure.” The primary special building requirements mandate that the lowest floor of a regulated structure must be constructed at or above the Base Flood Elevation determined by the Federal Emergency Management Agency (FEMA). Other requirements include installation of adequate openings beneath the floor to allow for passage of floodwaters, placement of building utilities (e.g. water heater, furnace, etc.) above the flood level, use of flood-resistant building materials, and the certification of lowest floor elevations by a registered engineer or surveyor.

It is important to understand the intent and context of the federal floodplain management regulations, particularly with respect to their applicability to existing structures. The
concept of retrofitting existing buildings to protect them from flooding when they are “substantially improved” is consistent with FEMA’s mission as administrator of the NFIP. Through the NFIP, FEMA makes flood insurance available to residents and businesses nationwide. As an insurance provider, FEMA is motivated to minimize the number of at-risk properties, in order to reduce the potential damage claims by policy holders in the event of a major flood. Successful reduction of damage claims, in turn, allows the NFIP to lower the premiums paid by flood insurance policy holders. A recent article in the Palo Alto Daily News describes how the number of damage claims directly influences the cost of flood insurance (Attachment C). According to FEMA, the fifty percent threshold used to define “substantial improvement” was chosen “as a compromise between the extremes of 1) prohibiting all investment in structures in flood hazard areas which do not meet minimum FEMA floodplain management requirements, and 2) allowing structures to be improved in any fashion without regard to the hazard present.” Likewise, the “substantial improvement” regulation is consistent with the City’s goal to protect public health and safety. As evidenced by the widespread property damage caused by the overtopping of San Francisquito Creek in 1998, flood damage is a very real possibility for Palo Alto residents and businesses. Enforcement of the Flood Hazard Regulations, including the requirement to raise the floors of “substantially improved” buildings, will help to mitigate future flood damage.

The ultimate goal of removing the burden of special building requirements and mandatory flood insurance currently faced by owners of property in the SFHA can only be achieved through elimination of the floodplain. This, however, is a long-term solution that will require expensive flood control modifications to San Francisquito Creek and the bayfront levees. Steady progress is being made towards this goal. The San Francisquito Creek Joint Powers Authority is working with Palo Alto, its other member agencies, and the US Army Corps of Engineers to identify a flood control solution for San Francisquito Creek. There is $100K in the FY 03-04 Corps budget to start a reconnaissance study of flood control options. In addition, the Santa Clara Valley Water District has successfully lobbied Congress to authorize $100K in the FY 03-04 Corps budget to reassess the bayfront levees and the need for improvements. Improving San Francisquito Creek and the bayfront levees would eliminate the remaining flood hazards in Palo Alto. Staff is working cooperatively with other local agencies to make these improvements happen, but realistically these projects have a 10 to 20 year horizon.

FEMA and the State Department of Water Resources (DWR) periodically conduct “Community Assistance Visits” (CAVs) to audit the floodplain management practices of communities participating in the NFIP. In Spring 2000, DWR staff conducted a CAV with the City of Palo Alto. The DWR auditor concluded that the City is in general compliance with the NFIP requirements. However, the audit identified a deficiency in the City’s process for reviewing building permit applications for structures in the FEMA-designated floodplain, formally known as the Special Flood Hazard Area (SFHA).
PAMC Chapter 16.52 (Flood Hazard Regulations) contains special building requirements that apply to new construction and to “substantial improvement” of existing structures within an SFHA. The DWR auditor identified inadequacies in the City’s methodology for reviewing building permit applications for modifications to existing structures. Specifically, the auditor challenged the method used by City staff to determine whether an individual building project constitutes a “substantial improvement” subject to the special building requirements. The audit report included a requirement that the City modify its permit review methodology to bring it into compliance with NFIP standards.

PAMC Chapter 16.52 currently defines a “substantial improvement” as “any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty percent of the market value of the existing structure.” In order to ascertain whether proposed improvements to an existing structure constitute a substantial improvement subject to the Flood Hazard Regulations, Public Works staff reviews each project by comparing the cost of the improvements with the market value of the existing structure. The cost of the improvements is derived from information provided by the applicant on the building permit application form. Determination of the market value of existing structures has been more problematic and is the subject of the audit findings.

PAMC Chapter 16.52 does not contain a definition for the term “market value.” Since the term has multiple meanings in general usage, building permit applicants are often confused over how to interpret it. With guidance from local FEMA officials, Public Works staff developed a procedure for determining the market value of structures using the depreciated replacement cost approach. Using this approach, market value is calculated by multiplying the replacement cost per square foot by the existing building square footage and then multiplying the product by a depreciation factor that is dependent upon the age and condition of the building. Public Works staff worked with the City Attorney’s Office to draft a definition for the term “market value” based on this concept. The definition was reviewed and approved by FEMA and DWR staff and has been incorporated into the State of California model floodplain ordinance and adopted by local agencies such as San Mateo, Lafayette, Mill Valley, Brentwood, and Contra Costa County. However, this definition of “market value” has not yet been incorporated into the City’s Flood Hazard Regulations. Due to the complexity and variability of multi-family residential, commercial, and industrial buildings, staff has relied primarily on professional appraisals based on the depreciated replacement cost approach to determine the market value of these structures. Staff has used a standard rate of $120 per square foot for living area and $60 per square foot for garages as the depreciated replacement cost figures to determine the value of single-family residential structures. This one-size-fits-all approach for valuing single-family residential structures was the target of the DWR audit.
The DWR audit report states:

“Our review found one serious problem with the City’s Floodplain Management Program. The serious problem identified is that the City inaccurately evaluates structures for substantial improvement and substantial damage. The City currently evaluates all structures as “luxury” quality at $120 per square foot as defined in the Means Square Foot Estimating Guide. However, many of the structures identified in the enclosed “Floodplain Inspection List” are not “luxury” quality. Therefore, the cost per square foot for the actual structure evaluated is too high. To correct this serious problem, the City needs to modify its Substantial Improvement and Substantial Damage square foot building valuation so that it reflects the actual quality of the structure evaluated. It is also strongly recommended that the City adopt a definition for “Market Value.” This definition is necessary because of the many older structures that are being improved within the City’s Special Flood Hazard Areas.”

Other Issues
The revision of the Flood Hazard Regulations to add a “market value” definition provides a timely opportunity to clarify some additional floodplain management issues that have been problematic for staff and building permit applicants due to ambiguous or missing language. A detailed discussion of these additional regulation changes is included below.

The existing Flood Hazard Regulations allow an exemption from the floodplain-related special building requirements for historic structures listed on the National Register of Historic Places or the California Register of Historical Resources. Staff would like to extend the exemption provision to locally-designated historic structures, as discussed below.

DISCUSSION
Recommended Follow-Up to DWR Audit
As a follow-up to the DWR audit, staff reviewed options for conducting substantial improvement evaluations. The most accurate and rigorous method would be to base the cost of the proposed building improvements on a detailed construction cost estimate and to base the market value of the existing structure on an appraisal by a professional real estate appraiser. Since the majority of remodeling projects clearly do not constitute a substantial improvement, however, staff sought to develop a simpler and less costly means to conduct an initial screening of projects to determine whether or not they trigger the substantial improvement threshold without requiring all applicants to incur the cost of a professional appraisal. Therefore, staff developed a methodology for conducting preliminary substantial improvement evaluations without an appraisal. Under this approach, the cost of the building improvements would be based upon the cost figure accepted by the Building Inspection Division on the building permit application. The market value of existing single-family residential structures would be determined by staff
using a customized valuation methodology. The proposed methodology takes into account the unique characteristics (age, size, construction quality, amenities, etc.) of each individual structure while maintaining a streamlined review procedure that will allow for timely and accurate “substantial improvement” evaluations. The proposed evaluation procedure is based on cost estimating data contained in *Means Square Foot Costs*, a nationally-recognized cost estimating reference guide that is updated annually and adjusted for local construction costs. Staff has input cost data from the estimating guide into a customized software application that will allow custom valuations of residential structures based upon the following factors:

- Age of the structure
- Square footage of the structure
- Quality of construction (average vs. custom)
- Exterior finish
- Type of roofing materials
- Number of bathrooms
- Building upgrades (fireplaces, air conditioning, premium kitchen, etc.)

The software also applies an adjustment factor for depreciation of the structure based on its age.

A summary of the range of costs generated by this valuation methodology is provided in the attached tables (Attachment D). The unit cost figures are generally lower than the standard $120 per square foot figure currently used by staff to establish the value of existing structures. An example “substantial improvement” evaluation using the proposed technique is depicted in the attached narrative (Attachment E). Staff proposes to use this cost estimating software as a screening tool for reviewing building permit applications for modifications to existing structures in the SFHA. In most cases, this tool will allow staff to accurately and efficiently determine which building projects constitute substantial improvements subject to the Flood Hazard Regulations. Applicants will be given the option to provide a detailed construction cost estimate and a property appraisal prepared by a certified professional if they wish to challenge the screening-level substantial improvement evaluation conducted by staff. Professional appraisals will be accepted provided that they are prepared based upon the depreciated replacement cost approach.

The proposed cost valuation methodology was reviewed and approved by FEMA staff. The lower building costs generated by the new valuation methodology will tend to identify more projects as potential “substantial improvements,” subject to the special floodplain construction standards, but this trend may be offset by more use of professional appraisals by permit applicants to establish higher building values.
During the summer of 2003, staff convened a peer review panel consisting of members of the local development community (developers, design professionals and appraisers) to review the proposed cost valuation methodology. A list of members of the peer review panel is attached (Attachment F). The peer review panel was supportive of staff’s approach. The panel noted that the construction costs listed in the *Means Square Foot Costs* are lower than actual local costs, but acknowledged that they are consistent with costs typically submitted by applicants on building permit applications for new construction. Panel members observed that the initial substantial improvement screening will produce an accurate assessment as long as the unit costs for new construction and existing improvements are relatively consistent. The panel also felt that it was important to include the option enabling an applicant to obtain a professional cost appraisal if they do not agree with staff’s cost estimate.

In order to comply with the DWR audit of the City’s floodplain management practices, staff recommends that Council approve the attached ordinance incorporating the “market value” definition into the Flood Hazard Regulations and approve staff’s proposed cost valuation methodology for determining whether building projects modifying existing structures constitute a “substantial improvement.” Although codification of the “market value” definition is not strictly mandatory, the proposed definition is consistent with written guidance from FEMA and staff’s interpretation of the term. Staff strongly recommends that the definition be added to the Municipal Code in order to clarify the issue and to avoid disputes with applicants over the meaning of the term. This will promote consistency and efficiency in processing applications.

### Additional Floodplain Management Issues

In addition to adding the “market value” definition, staff recommends amending the Code in order to clarify some additional floodplain management issues that have been problematic for staff and building permit applicants due to ambiguous language or areas where the ordinance is silent. The issues, including health and safety exclusions from the Flood Hazard Regulations, crawl space construction standards, and the prohibition of new or expanded basements in the SFHA, are discussed below.

Section 16.52.040(35) of the Flood Hazard Regulations allows the exclusion of certain items of work when determining the cost of a building improvement project. By reducing the calculated cost of a project, these exclusions effectively allow more construction to occur before the “substantial improvement” criteria is triggered. One such exclusion is allowed for “any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions.” The vague nature of the language in this code section has created confusion for both staff and building permit applicants. Citing this code section, applicants have asked staff to exclude such items of work as fire sprinklers and seismic upgrades from the cost of their projects in an attempt to keep the total project cost below the “substantial improvement” threshold. FEMA officials have advised staff
in writing that it may only exclude 1) those costs for work to correct pre-existing code violations that make the structure uninhabitable, and 2) work necessary to comply with the Americans with Disabilities Act (ADA) (see attached correspondence – Attachment G). Based on the guidance from FEMA, Public Works staff and the City Attorney’s Office have drafted alternative ordinance language that more clearly describes the intent behind the exclusion (see Attachment A).

Section 16.52.040(5) of the Flood Hazard Regulations defines a basement as an area of a building having its floor subgrade (below ground level) on all four sides. Basements are prohibited for new construction and “substantial improvements” to existing structures that are within the SFHA. Written FEMA guidance has indicated that subfloor crawl spaces that are below grade on all four sides are considered basements and are therefore prohibited. A prohibition of subgrade crawl space areas, however, is not explicitly made in the existing Flood Hazard Regulations. The lack of specific language prohibiting subgrade crawl spaces creates confusion for building permit applicants and makes it difficult for staff to enforce the prohibition. Staff proposes to modify Section 16.52.040(21) to explicitly prohibit subfloor crawl spaces that are subgrade (below ground level) on all four sides for new construction.

As a result of local construction practices, subgrade crawl spaces are a common feature for residential structures in Palo Alto. Prohibiting subgrade crawl spaces on a new house is relatively straightforward since the building is constructed with new materials from the foundation up. Eliminating subgrade crawl spaces from existing houses that are being substantially improved, however, is much more problematic. The problem arises due to an inadvertent conflict with a Uniform Building Code rule that requires a minimum distance of 18 inches between the ground and the lowest structural member in the crawl space area (e.g. the floor joists) in order to provide adequate subfloor access. There are two typical scenarios for “substantial improvement” projects. In the first scenario, the lowest floor of the structure is below the base flood elevation for the parcel. In this case, the lowest floor of the entire house must be raised in order to comply with the Flood Hazard Regulations. Since the floor is required to be raised anyway, the applicant is required to fill in any subgrade crawl space area and then elevate the floor to a level that a) is at or above the base flood elevation, or b) provides the minimum 18 inches clearance above the ground, whichever is higher. The second scenario is the problematic one. In this scenario, the lowest floor is already above the base flood elevation so it does not need to be raised, but typically the house is built above a subgrade crawl space and most often the ground clearance is already at or near the minimum 18 inches. In this situation, filling in the subgrade crawl space violates the building code clearance requirement, but leaving the subgrade crawl space violates the Flood Hazard Regulations. In such cases, staff has elected to allow the subgrade crawl space to remain because it is considered onerous to require a permittee to incur the sizable cost to elevate the entire house simply in order to eliminate the minimal risk of damage that may occur if water accumulates in the crawl space during a flood event. Instead, staff has directed permittees to fill the
subgrade crawl space area to the extent feasible without violating the minimum clearance requirement. FEMA has recently issued written guidance that allows limited subgrade crawl spaces to remain if the following conditions are imposed on the project:

- The crawl space grade must not be more than two feet below the lowest adjacent grade outside the foundation.
- The height of the crawl space, measured from the interior grade of the crawl space to the top of the foundation wall, must not exceed four feet.
- There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space. The enclosed area must be able to be drained within a reasonable time after the flood event.
- The velocity of the floodwaters at the site should not exceed five feet per second.
- Communities that choose to allow subgrade crawl spaces must amend their flood hazard regulations to reflect the other conditions listed above.

Staff proposes modifying Section 16.52.130 of the Flood Hazard Regulations to allow subgrade crawl spaces to remain beneath substantially improved buildings, subject to the conditions dictated by FEMA.

According to the existing Flood Hazard Regulations, the requirement that the lowest floor of a structure be constructed at or above the base flood elevation only applies to new construction or “substantial improvement” of an existing structure located in the SFHA. This effectively prohibits the construction of most basements in the SFHA. There is a loophole, however, that allows the construction of a new basement or the expansion of an existing basement in an existing structure, if the construction does not constitute a “substantial improvement.” Staff believes that the health and safety risks caused by basements constructed beneath residential buildings located in a floodplain should be sufficient cause for a policy of complete prohibition. The impacts to basements during a flood were made evident during the February 1998 San Francisquito Creek flood, when the Fire Department assisted with pumping out several hundred flooded basements and subgrade crawl spaces throughout the City. Therefore, staff has proposed modifications to Section 16.52.130 of the Flood Hazard Regulations that close the existing loophole and prohibit any new or expanded basements in the SFHA in order to protect public health and safety.

**Expanded Exemption for Historic Structures**

The existing Flood Hazard Regulations allow an exemption from the floodplain-related special building requirements for historic structures listed on the National Register of Historic Places or the California Register of Historical Resources. Specifically, the definition of a “substantial improvement” excludes alterations to a designated historic structure as long as the proposed alterations will not result in the termination of the structure’s continued designation as an historic structure. FEMA regulations also allow for the exclusion of locally-designated historic properties in communities with certified
historic preservation programs. Palo Alto’s historic preservation program is certified by the State of California in the City’s Certified Local Government Agreement, and the exemption of locally-designated historic properties from the Flood Hazard Regulations was included in the Historic Preservation Ordinance adopted by Council in 1999. The exemption was eliminated, however, when the Historic Preservation Ordinance was invalidated by voter referendum in 2000. Staff would like to reinstate the exemption provision for locally-designated historic structures in order to provide an incentive for voluntary historic preservation. In particular, the regulations would be modified to exempt “any structure that is listed individually in the current edition of the Palo Alto Master List of Structures on the Historic Inventory in Category 1 “Exceptional Building” or Category 2 “Major Building” or any structure that has been certified by the Keeper of the National Register as contributing to the historical significance of a registered historic district”. It is expected that the potential exclusion from the Flood Hazard Regulations may induce some owners of properties listed as Category 3 or 4 on the Palo Alto Historic Inventory to seek the Category 1 or 2 designation if they qualify. The revised historic designation would allow property owners to implement extensive remodeling plans without having to elevate their structures, as long as the historic nature of the structure is not compromised. In turn, the voluntary addition of properties to the Category 1 or 2 inventory would increase the City’s ability to ensure the continued preservation of these historic properties and thus benefit the City’s overall efforts to promote historic preservation.

Public Outreach
In addition to convening the peer review panel for purposes of commentary on the “substantial improvement” cost methodology discussed above, staff has conducted outreach to those impacted by the recommended ordinance changes. Staff arranged a series of public meetings with residential property owners, commercial property owners, the Chamber of Commerce, and local realtors to provide information and receive feedback. The meeting for residential property owners was publicized through direct mailing to neighborhood association representatives and paid advertising in local newspapers. Individual meeting invitations were mailed to all owners of commercial property in the floodplain. The attached table lists the target audiences and meeting dates of staff’s outreach efforts (Attachment H).

The residential property owner representatives, local realtors, and the Chamber of Commerce Government Action Committee were generally supportive of staff’s proposed ordinance changes. There were a couple of notable concerns expressed by members of the public during the meetings. Many meeting attendees commented that the construction costs used to determine market value at the building permit screening phase are too low. The participants generally understood staff’s rationale supporting the methodology for initial screening of building permit applications (i.e. streamlined review procedure; customized approach based on the building’s size, age, construction quality, and amenities; the use of similar cost ranges for the cost of building improvements and
for building replacement costs, etc.), but found the process somewhat confusing. If Council approves the proposed cost valuation methodology, staff will prepare written guidance materials to clarify the process for permit applicants. Some residential property owners questioned why basements are allowed for commercial properties in the floodplain (as long as they are flood-proofed), but are prohibited for residential structures. One resident noted that FEMA regulations allow municipalities to permit residential basements under certain conditions and advocated that Palo Alto take advantage of this opportunity to allow residential basements. Staff has researched the FEMA regulations and has concluded that it would be difficult to comply with all of the conditions required to allow the City to permit residential basements (see summary of the requirements in Attachment I). In any case, staff continues to believe that the health and safety risks caused by basements constructed beneath residential buildings located in a floodplain are sufficient cause for a policy of prohibition.

The commercial property owners represented at the February 4 meeting expressed strong opposition to the proposed “market value” definition. They argued that staff is exceeding the minimum requirements of the National Flood Insurance Program by proposing a “market value” definition based on depreciated replacement cost. Furthermore, they contended that staff’s proposed definition will negatively impact commercial development in Palo Alto. They noted that the existing Flood Hazard Regulations provide that undefined terms “shall be interpreted so as to give them the meaning they have in common usage and to give this chapter its most reasonable application.” Under this approach, they believe that term “market value” should be interpreted as “the sales price mutually acceptable to a buyer and a seller” or “the value of a property based upon its income-producing potential”, common meanings of this term in the commercial real estate business. Staff is basing its recommendation on the specific verbal and written guidance on this issue provided by FEMA and California DWR staff. Several years ago, at the urging of some commercial property owners, staff wrote to FEMA seeking approval to use income-based appraisals to establish the market value of existing commercial buildings. FEMA responded by rejecting this approach and reinforcing the validity of the depreciated replacement cost methodology (see attached correspondence – Attachment J).

**RESOURCE IMPACT**
Council adoption of the attached modifications to Palo Alto Municipal Code Chapter 16.52 (Flood Hazard Regulations) will ease the workload on existing staff by clarifying ambiguities or omissions in the existing regulations.

In an effort to determine the impact of the Flood Hazard Regulations on commercial development, staff reviewed building permit applications for commercial buildings in the floodplain during the period from 1998 through the present. Of the 177 permit applications received during this period, only six were found to be substantial improvements. Two of the projects were never built, one was floodproofed by elevating
low-lying doors and windows and strengthening the walls, and three were either elevated or already met the minimum floor height requirements.

Failure to comply with the audit could result in the loss of the 15% flood insurance premium discount enjoyed by Palo Alto residents and businesses due to Palo Alto’s participation in the NFIP’s Community Rating System and its good standing in the NFIP. In a worst case scenario, Palo Alto could be suspended from the NFIP, which would make federally-backed mortgages unavailable to borrowers on properties located in the floodplain.

POLICY IMPLICATIONS
Council adoption of the attached modifications to Palo Alto Municipal Code Chapter 16.52 (Flood Hazard Regulations) will bring Palo Alto’s floodplain management program into full compliance with National Flood Insurance Program (NFIP) standards. Adoption of a “market value” definition and approval of the modified methodology for valuation of existing single-family residential structures will represent a change from the current valuation methodology and will comply with the requirements of the Spring 2000 audit by the California Department of Water Resources.

ENVIRONMENTAL REVIEW
Adoption of the attached ordinance is exempt from the provisions of the California Environmental Quality Act (CEQA) as a minor alteration in land use limitations in an area with an average slope of less than 20% which does not result in any changes in land use or density (CEQA Guidelines Section 15305).

ATTACHMENTS
Attachment A: Ordinance
Attachment B: Map of Special Flood Hazard Area
Attachment C: *Palo Alto Daily News* article on flood insurance
Attachment D: Range of building costs using modified cost valuation methodology
Attachment E: Example “substantial improvement” evaluation
Attachment F: List of Peer Review Panel members for modified cost valuation methodology
Attachment G: Correspondence to/from FEMA on health and safety exclusions
Attachment H: Summary of public outreach meetings
Attachment I: FEMA requirements for residential basements in the floodplain
Attachment J: Correspondence to/from FEMA regarding income-based appraisals

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Flood Hazard Regulations Public Meeting Attendees