

Friends of the Napa River

March 10, 2003

City of St. Helena, City Council Members
City Engineer Mr. Myke Praul
1480 Main Street
St. Helena, CA 94574

Re: *Comments on the St Helena Flood Protection Project, Draft Environmental Impact Report January 2003*

Friends of the Napa River (FONR) are commencing the review of the Draft Environmental Impact Report (DEIR) for the “City of St. Helena Comprehensive Flood Protection Project” (project). We appreciate the opportunity to provide you with our comments and concerns regarding the DEIR. In addition to these comments, the attached 02/26/2003 Memorandum “Technical Review and Comments” by the consultant Phil Williams and Associates (PWA) is to be considered as part of our comments. Also, comments and memoranda that have been previously submitted (attached with our letter of February 11, 2003, to you) should be included in the public record for this project and in the Final EIR.

Our intent is to assist you in the implementation of a consensus-based flood management strategy that comprehensively addresses the health of the river and the needs of the communities tied to it. It is our desire that the City adopt a flood management design that provides the maximum possible long-term protection to people and property from flood events and that incorporates the Living River Principles. We believe that these goals are not only compatible, but also intertwined.

Considering the involvement of FONR in preparation of this project to date, FONR wishes take this opportunity to:

- a) articulate our interests in the project,
- b) review our comments to date,
- c) articulate our experiences in the process leading to the DEIR,
- d) describe our general concerns regarding to the DEIR,
- e) detail the relation of the project to the Living River Principles,
- f) and detail specific comments regarding the DEIR.

A) FONR Interests

The interests of FONR are to advocate on behalf of responsible protection, restoration, development, and celebration of the Napa River and its tributaries. In this pursuit, FONR has collaborated with other stakeholders and organizations in the Napa Valley communities to develop the Living River Principles (LRP). It is our belief that strategies for protecting the health and safety of our community and public and private property are not only consistent with, but in fact depend on the incorporation of the LRP at the earliest stages of project conceptualization and through project implementation. Not only do we believe that this approach will have the greatest long-

term rewards for the public, but we also believe that proceeding in this manner will substantially reduce regulatory hurdles on the road to project implementation and reduce costs of mitigating impacts and long term maintenance efforts.

B) Comments to Date

In prior discussions and communications, FONR has raised a number of concerns regarding both the specifics of the Enhanced Minimum Plan (EMP) and the process, information, and presumptions that have led to the formulation of the EMP. These concerns have not been fully addressed and we request that these concerns (detailed in letters from FONR to the City Engineer dated 2/22/2002, PWA Memos dated 11/29/2002 and 01/20/2003, FONR to MIG 12/10/2002, FONR to City Council Members 01/27/2003) be released to the public and then have full disclosure for proper response to comments. We wish to take the opportunity to briefly summarize these previously documented concerns:

- the currently proposed EMP may not adequately address the Living River Principles (LRP)
- project alternatives which incorporate the LRP have not been considered in a meaningful way
- implementation of the EMP may result in degraded downstream reaches
- restoration objectives are subordinate to flood control and land ownership
- the project design for the EMP relies on the questionable assumption that the river is geomorphologically stable
- channel incision and simplification have not been adequately analyzed
- the relationship of the Pope Street bridge to the fluvial processes related to the project has not been adequately described
- design criteria for floodplain terraces are unresolved
- there is potential for significant deposition in the proposed floodplain terrace reaches which would require disruptive or expensive maintenance
- concerns expressed by the Department of Fish and Game (DFG, verbal at the 01/15/2003 meeting) and by the National Marine Fisheries Service (NMFS, per letter 05/22/2002) have yet to be addressed
- existing fish migration barriers have not been acknowledged (Pope Street Bridge)
- hardened/managed channel edges would adversely impact endangered species
- adaptive management is not integrated with planning and design, potentially exposing the City to high maintenance costs

C) The Planning Process to Date

At the initiation of study and discussion of solutions for addressing flooding hazards, the City articulated a desire to provide accurate information to the stakeholders and community and to achieve consensus. We are concerned that neither of these desires appears to be realized. For example:

- From the outset of our involvement, we have requested meaningful consideration of alternative project designs that are consistent with the intentions of “Ordinance No. 1 (NCFPWIA, Napa County Flood Protection and Watershed Improvement Authority), a.k.a. “Measure A,” that was passed in 1998 with a 2/3rds vote for the tax money to be used to fund the project. Any “Measure A” project must adhere to the LRP, hence be “multi-objective.”

- Certain requests for clarification of detail and of project design were dismissed or met with unsupported argument and deferrals of disclosure of relevant information (refer to 12/18/2002 letter from MIG).
- In addition, there have been other difficulties. Our initial steering committee representative was not consistently informed of plan details and meetings were held without his notification. Some of our early concerns and comments (e.g. the 10/17/2002 and 11/29/2002 PWA/FONR memoranda) were not included in the DEIR possibly eluding the City Council for early consideration. Several critical meetings have been held in Berkeley, which has not only presented an undue obstacle to the public's participation (recall that we are volunteers), but also precluded the full participation of agency representatives.

FONR recommends to more actively involve the public by creating a consensus based coalition process among stakeholders and resource agencies.

D) Sufficiency of the DEIR

CEQA Guidelines

The California Environmental Quality Act (CEQA) prohibits public agencies from approving projects if there are "feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental impacts of such projects." The CEQA Guidelines (California Code of Regulations Title 14, Chapter 3) describe the purposes of CEQA.

These are summarized below:

- inform decision makers and the public
- identify potential significant adverse impacts to the environment
- reduce or prevent potential significant adverse impacts to the environment through altering, conditioning, or disapproving projects
- afford the fullest possible protection to the environment within the reasonable scope of statutory language

The CEQA Guidelines also describe the purposes of an EIR. These include but are not limited to:

- inform decision makers and the public
- identify potential significant adverse impacts to the environment and ways to reduce them
- demonstrate to the public that the environment is being protected
- ensure political accountability by disclosing to citizens the environmental values held by their elected and appointed officials

To meet these goals, an EIR must consider the whole of a project, including planning, construction, operation, and reasonably foreseeable future phases.

CEQA and the CEQA Guidelines establish general criteria for the adoption of mitigation measures:

- mitigation must relate directly to the impacts caused
- mitigation must be feasible
- mitigations must be described in detail:
 1. state the objective of the mitigation
 2. explain the specifics of design and implementation
 3. identify measurable performance standards

4. provide for contingent mitigation if performance standards are not met
 5. identify parties responsible for implementation
 6. identify the specific location
 7. specify a schedule for implementation
- mitigation must be monitorable
 - mitigation must be effective
 - impacts of mitigation must be discussed in EIR
 - formulation of mitigation measures may not be deferred
 - mitigation must be monitored or reported
 - lead agencies are responsible for monitoring or reporting to ensure compliance with mitigation during project implementation

Comments on Document Organization

The CEQA Guidelines sections 15122 through 151232 detail the contents required in an EIR. The DEIR does not follow this organization. Instead, the prescribed components are spread throughout the document, making identification of impacts, review of baseline information, and evaluation of alternatives unnecessarily difficult. The DEIR contains a great deal of “filler” text. For instance, the DEIR section 4.5 goes to great length to describe legal standards and policies marginally or not at all relevant to the project, including the Magnuson-Steven Fishery Conservation and Management Act, the Migratory Bird Treaty Act, and the Natural Community Conservation Planning Act. The relevance of these passages is not linked to specifics of the project within the DEIR. This material appears to be included at the expense of a competent evaluation of the impacts of the project to listed species of fish and wildlife, particularly steelhead, which is not included in the DEIR (recall that the CEQA Guidelines section 15141 sets limits for the length of EIRs). Moreover, the publication of the appendices, which contain the bulk of the quantitative project information, on CD-ROM requires members of the public to have access to a computer to review the information in the record.

Comments on Project Description

We have discerned several problems with the project description in the DEIR. These include

- 1) discrepancies between the DEIR and the Geomorphic and Vegetative Assessment prepared by Swanson Hydrology and Geomorphology (SHG) regarding the water elevation during the 2-year storm event,
- 2) compatibility of the proposed levees and floodwalls with the Living River Principles, and
- 3) net loss of flood storage area resulting from the proposed Adams Street extension element.

These are described in more detail below:

- 1) General fluvial geomorphological theory holds that flood plain formation occurs at the 2-year storm event. In the Geomorphic and Vegetative Assessment, SHG assessed that the dominant flow of the Napa River where flood plain formation takes place is at 500 cubic feet per second (cfs). The DEIR states that the flood terraces will be built for inundation at a 4,500 to 5,000 cfs flow event (the 2-year event predicted by the hydrologic model). The artificial flood terraces are 10-15 feet above the water stage elevation for flows of 500 cfs (figure 4-8). This poses a problem for the project, as the artificial flood terraces will not be inundated with water until approximately the 10-year storm event (between 4,500 and 17,000 cfs). SHG was

hired to model the empirically derived 2-year flow, but this difference between the empirically derived and the modeled 2-year flow event has not been reconciled in the DEIR. This may mean that the riparian plants and trees in the artificial flood terraces and stated riparian habitats will not have sufficient water. The DEIR states that this project will create flood plain terraces, but field observations show that the flood plain formation occurs at lower water stage elevations. Thus the artificial flood terrace may be functionally ineffective and not replace the current riparian zone. The excavation of terraces and floodwalls will cause a net loss of the current riparian zone. The removal of riparian heritage trees and lower canopy vegetation on the existing left banks of the Napa River, opposite of the Sulphur Creek confluence and at the entrance and exit from the river to the 5-8 foot ditch in the flood terrace will reduce the area of the riparian gallery. Replacement of other trees in the artificial flood plain is not of equal habitat quality and value because the replacement location is out of reach of frequent inundation, only getting water for short periods during 2-10 year storm events. Maintenance of the artificial flood plain and controlling invasive plant species may present a long-term financial burden to the City.

- 2) The DEIR includes proposed construction of a new levee/floodwall along the right bank terrace adjacent to the Vineyard Valley Mobile Home Park upstream to Adams Street. This floodwall is an inverted T-type cantilever wall with a concrete keyway/cutoff. The length of the wall is approximately 925 feet. The height of this varies from 2 feet near Sulphur Creek to about 6 feet near Redondo Court. This hard cement structure is not consistent with the LRP. Potential resulting streambank failure down stream may cause increased fine sediment deposition in the Napa River. The proposed floodwall will also result in a decrease in riparian shade canopy, resulting in potential increase in summer water temperatures detrimental to aquatic species.
- 3) The extension of Adams Street from its existing terminus to the Silverado Trail will create a levee 3,500 feet in length at an elevation of 3 feet above the 10-year storm event. This may remove flood storage and sediment deposition on the valley floor.

Comments on Alternatives Analysis

1. Range of Alternatives

According to CEQA and the CEQA Guidelines, a DEIR must describe a reasonable range of alternatives, including the no-project alternative.

We believe that the range of considered alternatives (Minimum Plan, Enhanced Minimum Plan, the Vineyard Valley Relocation Plan, and the No Project Alternative) in the DEIR is incomplete. There does not appear to be a consistent rationale for accepting or rejecting alternatives from consideration. The DEIR should include one or more alternatives which fully incorporate the LRP from an early design phase. Due to the pressing need to protect people and property from potential flood damage, we suggest that the City consider a phased flood management plan. Such a plan could initially focus on the relocation of occupied structures at greatest risk, allowing time for the development of an effective LRP-based flood management solution with protection of the remaining homes during a 150- or a 200-year flood event. We do not believe that the residents of Vineyard Valley are well served by a flood control project that does not provide protection from a 150- or 200-year flood event (recall that a 200-year event has a 5% chance of occurring over any 10-year period). These types of questions need to be addressed to properly evaluate the alternatives.

*FONR recommends that the DEIR be modified to include a **phased flood management plan** which provides protection and allows for the development of a flood management plan that fully incorporates the LRP.*

2. Comparison of Alternatives

Comparison of the considered alternatives in the DEIR seems incomplete and not wholly based on substantial evidence. Descriptions of “Community Impacts” in Chapter 2 and Appendix A are largely based on speculation and unsupported argument. Disclosure of the potential impacts of the considered alternatives is also weak. For instance, the description of the impacts to biological resources of the Vineyard Valley Relocation Plan (section 4.5.2.4) fails to reproduce the tables of trees potentially removed that is included for the Minimum Plan and the Enhanced Minimum Plan. However, it does indicate that the removal of trees that would occur under this alternative may affect “potential nursery sites.” This section also indicates that the purported environmental benefits of terracing would not occur under this alternative. However, support for this argument is not provided. In addition, the last three paragraphs of this section are entirely unrelated to the Vineyard Valley Relocation Plan alternative, which again reflects the lacking organization of this document.

Comparison of the considered alternatives is further compromised by the lack of competent analysis of potential impacts to aquatic habitat associated with the construction, operation and reasonably foreseeable future phases of the project. Mitigations associated with each alternative are described in vague and noncommittal terms.

3. Selection of the Superior Alternative.

The DEIR fails to identify an environmentally superior alternative, as is required by CEQA and the CEQA Guidelines. Explanation of this failure on pages ES-17 and 2-15 indicates that this matter is currently under study. However, the DEIR states that despite this deficiency the City has determined that the EMP is the preferred alternative. On the basis of these statements it is reasonable to conclude that the City is prejudicially deciding on project alternatives without due consideration of the project implications. This is not only inconsistent with the intent of CEQA, but also flies in the face of the principles of democratic governance. This unfortunate reality is further attested to by MIG’s 12/18/2002 letter to FONR, which responds to FONR questions regarding project details central to the design of a successful flood control project by indicating that such information was still under study and then, in the DEIR, asserting the City’s commitment to the EMP. The cart certainly appears to be before the horse.

FONR recommends that the DEIR be revised to provide the basis for a rational selection of alternatives and that any heretofore-undisclosed motivations for selecting the EMP be clearly stated in the DEIR. This may require substantial revision.

E) Comments on the Adherence to Living River Principles

FONR has determined that the DEIR has not sufficiently addressed the consistency of the proposed project with the Living River Principles. For example:

- Will the project maintain or restore the river to a state of geomorphic equilibrium?

- Will the project maintain the natural width of the river?
- Will the project maintain the natural width/depth ratio of the river?
- Will the project maintain or restore the connection of the River to its floodplain? This should be of sufficient width to accommodate river meandering caused by naturally occurring flows.
- Will the project restore the river to a state of sediment transport equilibrium as follows?:
 - the amount of sediment entering and leaving the system should be equal
 - restore the natural relationship between the floodplain, riparian edge and river
- Will the project re-establish a system in equilibrium and decrease upstream erosion rates, rather than relying on maintenance dredging to maintain the channel capacity?
- Will the project minimize the need for erosion control measures such as rock riprap or other hard structure/materials?
- Will the project maintain seasonal flows of sufficient magnitude and duration to sustain channel morphology within a floodplain?
- Will the project maintain adequate flows and velocities for sediment transport?
- Will the project preserve the size and seasonally varying location of the null/entrainment zone and its ecological characteristics?
- Will the project maintain dissolved oxygen at levels appropriate for a cold water fishery? (Minimum 7.0mg/L)
- Will the project maintain adequate circulation patterns?
- Will the project maintain water temperatures appropriate to the needs of the local biota?
- Will the project result in no physical or water quality barriers to migration?

F) Specific Comments on the DEIR

1. All measures proposed in the EIR for the mitigation of potential significant adverse impacts to the environment should meet the criteria detailed in CEQA and the CEQA Guidelines as described above under “Sufficiency of the DEIR.”
2. Any and all potential impacts to aquatic habitat in the Napa River, Sulphur Creek, or other affected tributaries may adversely impact the habitat and impede the recovery of the federally threatened steelhead trout and may impede the recovery of the federally and state endangered California freshwater shrimp by further damaging or limiting recovery of its historic habitat. Other species of management concern, including the western pond turtle, may be adversely impacted as well. Potential impacts that may result from permanent or temporary conditions resulting from project design, construction, operations and maintenance, and foreseeable future conditions must be treated as significant impacts. Activities associated with the proposed project, including terrace creation, bridge construction, causeway construction, road extension, vegetation removal, construction of engineered “bank protection,” and modification of storm drains pose impacts through the potential deposition of fine sediments and other materials into aquatic habitat, bank simplification, alteration of channel morphology, and reduction in thermal cover. Feasible and effective measures to avoid or remedy such impacts should have been detailed in the DEIR.

FONR recommends that potential impacts to aquatic habitat quantity and quality be disclosed and that measures to avoid or fully mitigate these impacts be included in the DEIR.

Measures should be included to monitor and report on the implementation and effectiveness of such measures.

3. On page 4-74, the DEIR proposes the preparation of a stormwater pollution prevention plan to mitigate the adverse effects of erosion and fine sediment deposition. However, the nature of this plan is only vaguely described. It appears that such a plan has not been completed and is not available for public review at this time. This is counter to the direction in CEQA Guidelines Section 15126.4(a) (formulation of mitigation measures may not be deferred). The deferral of developing such a plan presents a major deficiency in the DEIR. For example, the general descriptions provided in the DEIR do not provide assurance that potential impacts of sediment run-off will be addressed. The DEIR states that "...crews will install erosion controls such as hay bales" and other materials. Use of hay bales is generally out of favor with most erosion control specialists. Where they must be used, successful use of hay bales as erosion control devices relies on appropriate use, placement, and anchoring. None of these specifics are detailed in the DEIR. Another example: in the same section, the DEIR indicates that "The refueling of equipment [will take place] in designated staging areas." However, these "designated areas" are not described in the DEIR.

FONR supports the development of a stormwater pollution prevention plan and recommends that the DEIR incorporate a completed stormwater pollution prevention plan.

4. The preferred project (EMP) may be growth inducing. The new levee on the west bank creates new area with 100-year flood protection and puts agricultural preserve lands at risk of development. This is inconsistent with the intent of Measure A.
5. Maps and figures (figures 2-3, 3-1, 3-2, 3-5, 3-5A, 3-7, 4-5, 4-6, 4-7, 4-9) fail to include the FEMA 100- and 500-year flood lines as well as lines representing the projected post-project extent of flooding during 100-year (design) events. This information is central to considerations of flood control projects. It is unclear why they have not been included. These data are readily available from the Napa County GIS website.

FONR recommends that the FEMA 100- and 500-year flood lines and lines representing the projected post-project extent of flooding during 100-year events be included on figures 2-3, 3-1, 3-2, 3-5, 3-5A, 3-7, 4-5, 4-6, 4-7, and 4-9, and any other relevant figures or maps.

6. The proposed artificial flood plain terracing and creation of side channels have the potential to strand fish, including steelhead trout and Chinook salmon, as water levels recede. Even if the terraces and side channels are initially designed to avoid stranding, the pattern of future sediment deposition in these channels is uncertain. Predicting the future channel bed grades of these side channels is difficult, as many models are poor at predicting behavior at discharge splits and unforeseen blockages and materials within the channel may affect the future condition. While some have proposed that the City undertake a maintenance program to address this concern, we feel that such a program would be expensive and unreliable. It should be noted that "fish rescue" programs are currently out of favor with state agencies. The potential for fish stranding within the artificial flood plains does not appear to be addressed in the Section 4.5 or anywhere else in the DEIR.

FONR recommends that proper restoration be designed to avoid the stranding of fish as the water surface elevation drops.

7. Funds for maintaining the artificial flood plain in functional condition have not been identified and a maintenance plan has not been produced.
8. Isolating the riparian forest will result in islands of riparian habitat, which may cause accelerated erosion down stream, bank failures, and sedimentation of spawning gravel.
9. Hard-engineered floodwalls may cause bank failure on the opposite banks by deflection of flow forces. This has the potential to degrade riparian and aquatic habitat. Other potential impacts include the entrainment of fish within gabion structures and the reduction of instream vegetation which acts as thermal cover. None of these potential adverse impacts to steelhead and other potentially occurring rare, threatened, or endangered aquatic species are addressed in the DEIR
10. The geomorphic study needed for the artificial flood terraces have not had a geomorphic study. There are inconsistencies of the dominant flow between the flow meter vs. modeling. See PWA comments.
11. Adams Street bridge and the construction of levees associated with the Adams Street extension will decrease total flood plain storage. This may result in a net reduction in the available flood plain, resulting in increased water velocities in the Napa River channel during storm events and increased incision and bank erosion downstream of Adams Street. See PWA comments.
12. Descriptions of vegetative communities provided on page 4-24 fail to follow a recognizable nomenclature for describing species composition of vegetative communities or habitats. Habitat classification is required for determining the likelihood of presence and the habitat value of the site for species of management concern.

FONR recommends that descriptions of vegetative communities within and near the project site be made with respect to a classification system used by the scientific community. Examples include A Manual of California Vegetation, or the California Wildlife Habitat Relationships System. In addition, some indication of the size class and canopy closure of the habitat types should be included.

13. Table 4-4 presents a list of special-status species that may occur on the project area. Sources for this information are not identified. Was the current version of the California Natural Diversity Database consulted? Was the current version of the California Native Plant Society Electronic Inventory consulted? Were California Academy of Sciences collection databases consulted? If so, what query criteria were employed?

FONR recommends that the current editions of these sources be consulted to determine if there are records of rare, threatened, or endangered species on or near the project area. If this has been done, such references should be cited in the DEIR, per CEQA Guidelines 15148.

14. Table 4-4 presents a list of special-status species that may occur on the project area. Despite the fact that potential habitat exists on the project area or in areas influenced by the

project, further consideration is not given to project impacts on many of these species, presumably on the basis of a lack of documented occurrences. Lack of records is not a credible basis for presuming that such species are not present. Have surveys for potentially occurring species been conducted? If so were the current methodologies for detecting such species employed, or was a cursory “walk-through” effort made instead? The vegetative assessment described in Appendix C does not appear to constitute such an effort (see page 3 of the Geomorphic and Vegetative Assessment).

FONR recommends that reasonable effort be made to detect potentially occurring rare, threatened, or endangered species on and within the zone of influence of the project site by qualified biologists. If this has been done, such references should be cited in the DEIR, per CEQA Guidelines 15148.

15. The discussion of wildlife utilizing the study area on page 4-28 is vague and does not appear to be based on site-specific investigation or a strong knowledge of locally occurring fauna.

FONR recommends that the wildlife associated with the study site be adequately described in the DEIR This is of concern as the proposed vegetation clearing associated with Element C may permanently reduce habitat value for local terrestrial species and construction activities associated with terracing may temporarily reduce habitat value for these species.

16. The DEIR does not demonstrate that modifications of channel profile resulting from the project will maintain suitable water depth and velocity for juvenile rearing steelhead during low summer flows.

17. The DEIR fails to adequately characterize the current type and quality of habitat for steelhead, California freshwater shrimp, Chinook salmon and other potentially occurring rare, threatened, and endangered species. Such information is critical for design and evaluation of alternatives of projects in and around habitats form these species. How this information has figured into the project design to date is not clear.

FONR recommends that a complete detailed and accurate habitat assessment for all rare, threatened, and endangered aquatic species potentially occurring on the project area or areas influenced by the project. This assessment should address current and historic conditions.

18. We believe that there is an artificial sill below the Pope Street Bridge which is acting as a grade control for the section of river in the project area.

FONR recommends that this sill be removed and that caissons be installed around the bridge footings. See PWA comments.

19. Installation of floodwalls as described in the DEIR may diminish existing habitat quality for aquatic and riparian species. Figure 3.3 which describes the floodwall design does not show the relationship between the floodwall and the riverbank. Will the floodwall be set back from the riverbanks? How far?

FONR recommends that the DEIR show the relative position of the proposed floodwall to the river channel and the expected post project condition of the riverbanks.

20. It appears that the proposed floodwall and levee construction will prevent stormwater drainage of occupied areas upslope from the floodwall. How will stormwater be delivered from these areas during and following periods of intense precipitation?

For the reasons described above, we feel that the DEIR is substantially deficient. We believe that this substantially reduces the ability for the public to review, understand and comment on the project in an informed manner and violates the intent of the California Environmental Quality Act. We suggest that the DEIR be withdrawn and that a new DEIR be prepared which fully remedies the deficiencies described above and in PWA's comments. We recommend more actively involving the public by creating a consensus based coalition process among stakeholders and resource agencies.

Due to the pressing need to protect people and property from potential flood damage, we suggest that the City consider a *phased flood management plan*. Such a plan could initially focus on the relocation of occupied structures at greatest risk, allowing time for the development of an effective flood management solution based on Living River principles.

Respectfully,
The FONR Review Team (RF, CM, JH, DG, BK)