Meeting of the Central Valley Flood Protection Board
August 26, 2011

Staff Report
(Tulare County)

1.0 - Item

Consider denial of a variance request to waive Board standards to allow the construction of a year-round residential dwelling within the Kaweah River Designated Floodway. Staff recommends denial of Application No. 18670 through Resolution No. 11-25 (Attachment A).

2.0 - Applicant

Martin T. & Ellen K. Burnham
650 West El Repetto Drive
Monterey Park, CA 91754-5344

3.0 - Location

The proposed project site is located within the Kaweah River Designated Floodway on the left (east) bank of the North Fork of the Kaweah River at 42490 Kaweah River Drive (APN: 067-160-039 and portion of 067-120-010) in Tulare County. It is upstream of the confluence of the North Fork and Middle Fork of the Kaweah River and approximately one mile upstream from the city of Three Rivers and about five miles upstream from the Terminus Dam at Lake Kaweah (See Figures 1A and 1B).

Figure 1A. Vicinity Map. Source: Google Earth Pro.

Figure 1B. Aerial view of the property at 42490 Kaweah River Drive. Parcel boundary and Floodway lines for Board and FEMA are drawn. Source: Google Earth Pro.

4.0 - Description

Mr. and Mrs. Burnham, herein referred to as "the applicant," desire to construct a 4,500-square-foot private dwelling and a 1,280-square-foot garage/shop with residential home appurtenances, including but not limited to underground utilities, driveway, septic system, and fire suppression and propane tanks, located within the Kaweah River Designated Floodway.

The site is also located within Zone X of the Flood Insurance Rate Map (FIRM) prepared by the Federal Emergency Management Agency (FEMA), Map Number 06107C0709E, dated June 16, 2009 (See Attachment F, Exhibit B). Zone X is defined by FEMA to be an "area of moderate flood hazard, usually between the limits of the 100-year and 500-year floods."

5.0 - Background

The applicant originally came twice before the Board in 2009 and 2010 to request to modify the Kaweah River Designated Floodway to allow for the construction of a private residence. A detailed chronology of significant events is outlined below:

- On July 23, 2008, Mr. Charles Roberts of Roberts Engineering sent a letter to the Board's Executive Officer, on behalf of the applicant, requesting modification of the Board's Kaweah River Designated Floodway to allow construction of a residential dwelling (See Attachment E, Exhibit A). The letter cited that the site the applicant wishes to build on is outside of the floodway, per Federal Emergency Management Agency (FEMA) mapping. During the review process, staff informed the applicant that the project site is located within the Board's designated floodway; therefore, no structure for human habitation will be permitted within the Board's Designated Floodway, and that a variance from the Board would be required. No formal application was submitted at that time.

- On October 23, 2009, the request to modify the designated floodway was presented before the Board. Staff recommended denial of the request. After hearing testimonies from both Board staff and the applicant's consultant, the Board directed staff to work with the applicant to determine if there is new information to justify the modification of the floodway.

- On April 23, 2010, the applicant's request to modify the designated floodway was again presented to the Board. Staff recommended denial of the request. During the hearing, staff presented the option that the applicant be given the opportunity to submit an encroachment permit application for Board consideration. After additional information was presented by staff, the Board denied the applicant's request to modify the Kaweah River Designated Floodway. At the conclusion of the hearing, the Board acknowledged the applicant's option to submit a permit application.

- On March 3, 2011, Mr. Burnham submitted a permit application to construct a residential dwelling within the Kaweah River Designated Floodway. During the application process, the applicant was informed that building a residential dwelling in a designated floodway is prohibited, and that a variance from the Board's Regulations would be required. Further information was submitted by the applicant up to May 16, 2011. After several email correspondence and phone conferences between staff, the applicant, and the applicant's agent, the applicant was notified by letter dated July 13, 2011 that Board staff will recommend denial of the submitted application (See Attachment B, Exhibit D).

6.0 Variance Procedure

The Board has the authority to approve or deny a variance to its standards as described in the following excerpt from the California Code of Regulations:

> *California Code of Regulations Title 23.* ***§ 11. Variances.***
>
> *(a) An application for an encroachment permit for a use that is not consistent with the board's standards as outlined in this division requires a variance approved by the board.*
>
> *(b) When approval of an encroachment requires a variance, the applicant must clearly state in the application why compliance with the board's standards is infeasible or not appropriate.*

Additionally, the Board shall conduct the hearing using the following procedures:

California Code of Regulations Title 23. ***§ 13.1. Conduct and Order of Evidentiary Hearings***

(1) For purposes of this section, a resolution adopted by the board at the hearing shall be deemed to satisfy the requirement for written conclusions, including any modifications made to the resolution at the hearing.

(2) In addition, unless otherwise specified at the time of the vote, an action taken consistent with the staff recommendation shall be deemed to have been taken on the basis of, and to have adopted, the reasons, findings and conclusions set forth in the staff report, including any modifications made to the staff report at the hearing.

(i) If the board action is substantially different than that recommended in the staff report and/or the resolution, the board may direct staff to return at a subsequent board meeting with a revised resolution and/or proposed revised written conclusions that reflect the action of the board. Revised written conclusions may be placed on the consent calendar and do not re-open the hearing. Public comment is restricted to whether the revised written conclusions reflect the action of the board. Any proposed written conclusions shall only be effective if concurred in by at least four members of the board. Board members who were not present for the original vote may only vote on the revised written conclusions if they have familiarized themselves with the record of proceedings. If the board does not accept the revised resolution or proposed revised written conclusions submitted by the Executive Officer, the board can either make such changes as it determines are appropriate and adopt the findings at that meeting or direct the Executive Officer to prepare further proposed written conclusions and submit them to the board at the next meeting. The board's decision is deemed final at the time of the initial vote on the application, not the time that the revised written conclusions are adopted.

DENIAL: If a 4 person majority of the Board votes to deny the variance, consistent with the staff recommendation the staff report shall become the record for decision and a denial letter will be sent to the applicant.

APPROVAL: If a 4 person majority of the Board votes to approve the variance, which is different than the staff recommendation, a resolution approving the variance along with a draft permit will be placed on the Board's subsequent consent calendar.

7.0 – Applicant's Variance Request

The following codes apply to this decision:

Water Code Section 8414.2, ***Revisions and variances by public agencies; consent of department, board and local agency****. No public agency shall revise flood plain regulations established to meet the requirements of Section 8411 or shall grant a variance from such regulations without the consent of the department or board and of the local flood control agency having jurisdiction over the project area.*

Title 23 §107, The following uses may be permitted in the designated floodway so long as alone or cumulatively, in the judgment of the board, they will not unduly impede the free flow of water in the floodway or jeopardize public safety: (g) Structures that are designed to have a minimum effect upon the flow of water and are firmly anchored to prevent the structure from flotation, provided that normally no structures for human habitation will be permitted.

Title 23 §113(b), Dwellings and structures within an adopted plan of flood control must comply with the following requirements: (1) New dwellings, with the exception of dwellings for seasonal occupancy (nonflood season), are not permitted except as provided in subdivisions (d) and (e) of this section. NOTE: Subdivisions (d) and (e) do not apply to this location.

Per California Code of Regulations (CCR) Title 23 §11 (b), the applicant must state why compliance with Board standards is infeasible or not appropriate. The applicant's basis for requesting a variance is that the proposed building site is not within a flood area per FEMA mapping as shown on the 2009 Flood Insurance Rate Map (FIRM) (See Attachment F, Exhibit B). Reasons justifying the request for a variance submitted with the application are presented below with Board staff comments:

- Applicant Claim: Calculations used to develop the adopted designated floodway map for the Kaweah River are outdated. "The best available estimate for 100-year peak flows (based on statistical evaluation of measured streamflow data) is contained in the FEMA Flood Insurance Study; 62,800 cfs on the Middle Fork downstream of the North Fork confluence, and 20,700 cfs on the North Fork at the confluence with the Middle Fork" (See Table 1 and Attachment B, Exhibit C).

Table 1. Flood Discharge Values provided by Board staff, in cubic foot per second [cfs]

River	State of California (Board)	Corps (1967)[1]	FEMA[2]	Flood of 1955	Flood of 1966
Kaweah River @ Three Rivers	80,000	80,000	62,800	60,000[3]	73,000[3]
North Fork	24,000	24,000	20,700	21,500[4]	23,900[4]
Middle Fork	57,000	57,000	48,000	59,300[6]	23,040[5]

1. Flood Plain Information – Kaweah River, Three Rivers, California; USACE, October, 1967
2. Flood Insurance Study – Tulare County and Incorporated Areas, California; FEMA, June 16, 2009
3. USGS Gaging Station 11209900 .
4. USGS Gaging Station 11209500.
5. USGS Gaging Stations 11206501, 11208001, and 11208731.
6. Kaweah River Basin, California Hydrology, USACE, August, 1990

Staff Comment: *The State of California design flood flows for the Kaweah River Designated Floodway closely match floods of record in 1955 and 1966. Additionally, the designated floodway lines match scour lines shown on aerial photography (See Figure 5).*

- Applicant Claim: "Detailed hydraulic analysis by FEMA and the applicant's consultant team demonstrates that the entire project is outside the FEMA 100-year floodplain" (See Attachment B, Exhibit B).

    a. The proposed project will have no effect on the FEMA 100-year base flood elevation.
    b. The finished first floor of the proposed dwelling is more than 5 feet above the FEMA 100-year base flood elevation.

c. The finished first floor elevation is more than 1 foot higher than the FEMA 500-year base flood elevation.

Staff Comment: *The Board's designated floodway is not restricted to a 100-year flood event. Water Code Section 8609 authorizes the Board to designate floodways to protect lives and improvements created in reliance upon historical flooding patterns. Design flood flows that the Board officially recognizes are identified in the designated floodway map. These flows are greater than FEMA's 100-year flood event. In fact, USGS gage records indicate that two historic flood events in 1955 and 1966 exceeded FEMA's 100-year flood flows. Even if the finished floor elevation of the proposed dwelling is higher than the 100-year FEMA base flood elevation, the area surrounding the proposed dwelling will be underwater.*

8.0 - Relevant Laws and Policies

Since the adoption of the designated floodways, several new laws and policies have been enacted which reemphasize the need to protect the State's flood control projects from encroachments and habited dwellings, and to incorporate best known science on the potential impact of climate change to the State's flood management efforts. For example:

State Executive Order B-39-77 states:

"*…throughout the state the magnitude of annual flood caused property losses and threats to human safety is increasing, largely as a result of unwise use and continuing development of the state's floodplains and despite substantial efforts to control floods;…*"

"*…state agencies need to be more cognizant of long and short term flood risk and losses associated with occupancy of floodplains and more consistent in the evaluation of flood hazards in implementing their programs;…"*

The draft Tulare County Climate Action Plan, dated February 2010, states:

"*…climate change could affect California's environmental resources through potential, though uncertain, changes related to future air temperatures and precipitation and resulting impacts on water temperatures, reservoir operations, sea levels, and stream runoff. Such changes could threaten California's economy, public health, and environment.*"

"*Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.*"

"*It is expected that increased amounts of winter runoff could be accompanied by increases in flood event severity and warrant additional dedication of wet season storage space for flood control…"*

9.0 - Staff Analysis

The subject parcel (6.91 acres) is upstream of the confluence of the North Fork and Middle Fork of the Kaweah River. It is within FEMA Flood Zone X and within the Board-adopted designated floodway for the Kaweah River. The Kaweah River Designated Floodway line dissects the northeast boundary of the parcel and encompasses the remaining portion of the site with the exception of the approximately 10,200 square feet portion described above (See Figure 1B). The application did not clearly mention how the applicant intends to fully develop the subject parcel.

The applicant desires to construct a 4,500 square-foot dwelling with an adjacent garage that is 1,280 square feet along the left (east) bank of the North Fork of Kaweah River. A combination of footings and stem walls will be used to raise the finished floor elevation of the dwelling to 853.50 feet (NGVD29). The adjacent garage will have finished floor elevation equivalent to existing ground elevation that is not specified in the plans.

A 12-foot wide driveway section is also proposed to be constructed to provide access to the proposed dwelling that leads out towards the Kaweah River Drive. Finished elevation of the driveway will be equivalent to existing ground elevation, which varies from 849.69 feet to 851.20 feet. Residential appurtenances will include a septic system, fire suppression and water tanks, and utility lines.

The proposed fire suppression and propane tanks will be located outside of the designated floodway, and will be connected to the dwelling by underground utility lines. Electric, water, and telephone lines connected to existing service lines will be servicing the proposed residence by underground utility lines.

The proposed location of the septic tank and leach field are not in conformance with general condition number 10 of the Tulare County Flood Variance, which states that “no sewage disposal system shall be installed within two hundred feet (200’) from any reservoir, one hundred feet from any river/year round creek, and fifty feet (50’) from any drainage course” (See Attachment C). Both the septic tank and leach field are within 50 feet from a drainage course as shown on the submitted plans.

The proposed septic system also does not conform to conditions 2 and 4 of the sanitary waste permit obtained on September 27, 2005 from the Tulare County Health & Human Services Agency. Condition 2 requires that any change in the design will require prior approval by the agency, and condition 4 states that the location of the leach field shall be installed in the area designated on the submitted design. The septic system design submitted to the agency in 2005 shows the residence, septic tank, and leach field to be in different location than shown on the encroachment permit application materials (See Attachment D, Exhibit A). The septic system location will need to be addressed should the Board approve the variance.

9.1 - Hydraulic Analysis

The Board officially recognizes design flood flows for the Kaweah River at the project location that are identified in Sheet 10M of the Kaweah River Designated Floodway Map, which was adopted by the Board on October 18, 1974 (See Attachment G). Calculation of these flood flows are based on existing high water mark and historical data, and are the same as the Intermediate Regional Floods (IRF) values found in the 1967 Kaweah River Flood Plain Information report prepared by the United States Army Corps of Engineers (Corps) (See Attachment H). Based on the Designated Floodway Table, these flood flows have an average return frequency of 1 in 100 years. The floodway lines were delineated using:

- Photographic evidence of design flow
- Flood photography at the design flow and less than the design flow
- Channel capacity studies and water surface profiles
- Engineering study using USGS Quad Maps, Stage-Discharge
- Observed high water marks
- Topography, culture, and development

The project location has already experienced two historical flood events that exceeded FEMA's 100-year design flood flows. In 1955, a peak flow of 59,300 cfs was recorded on the Middle Fork above Three Rivers. In 1966, peak flows of 23,900 cfs and 73,000 cfs were recorded on the North Fork and on Kaweah River at Three Rivers, respectively. These observed values are very close to within the Board design flows of 57,000 cfs on the Middle Fork above Three Rivers, 24,000 cfs on the North Fork, and 80,000 cfs on Kaweah River at Three Rivers, which suggest that using the Board design flood flows to determine potential effects of the proposed dwelling to lives, properties, and flood control works are conservative.

The submitted hydraulic analysis uses FEMA's 100-year design flood flows. These flows are less than the Board design flows. Figure 3 shows a summary of flood elevation calculations prepared by the applicant comparing existing surface elevation to FEMA's Water Surface Elevation (WSEL), and the proposed finished first floor elevation which is 853.5 feet.

At Cross Section 6, the existing ground elevation of where the proposed dwelling will be located is 850.79 feet which is 2.37 feet above FEMA's 100-year WSEL. At Cross Section 8, the existing ground elevation of where the proposed driveway will be built over is 849.69 feet which is 0.47 feet above FEMA's 100-year WSEL. The applicant approximated the 500-year base flood elevation using "interpolation of maps contained in [the FEMA] Flood Insurance Study Tulare County, California, and Incorporated Areas." The proposed finished first floor of the dwelling will be 1.5 feet above the 500-year WSEL.

Summary of Flood Elevation Calculations

Station (feet)	Description	Ground Surface Elevation (feet)	100-Year Base Flood Elevation[1] (feet)	500-Year Base Flood Elevation[2] (feet)	Proposed Finished First Floor Elevation (feet)
Cross-Section 5[3]					
0+03.41	Designated Floodway Boundary	850.64	848.14	851	--
1+65.32	Ground Surface Low Point	843.53	848.14	851	--
2+89.56	Ground Surface High Point	849.95	848.14	851	--
4+45.57	Channel Invert	830.16	848.14	851	--
Cross-Section 6					
3+25.66	Designated Floodway Bounday	850.15	848.42	852	
5+18.37	Ground Surface Low Point	846.61	848.42	852	--
5+83.35	Ground Surface High Point	850.79	848.42	852	853.5[4]
7+19.64	Channel Invert	832.89	848.42	852	--
Cross-Section 7					--
3+12.73	Designated Floodway Bounday	851.01	848.91	852	--
4+66.87	Ground Surface Low Point	846.84	848.91	852	--
5+50.67	Ground Surface High Point	851.20	848.91	852	--
6+18.09	Channel Invert	836.08	848.91	852	--
Cross-Section 8					
1+08.04	Designated Floodway Bounday	850.47	849.22	853	--
2+70.30	Ground Surface High Point	849.69	849.22	853	--
3+69.06	Channel Invert	831.86	849.22	853	--

1. 100-year base flood elevation (BFE) based on HEC-RAS hydraulic modeling conducted by AMEC and Don Stivers Surveying. Water surface elevation is the same for existing and post-project conditions because the entire proposed project is outstide the 100-year floodplain.
2. Approximate 500-year BFE based on interpolation of maps contained in the Federal Emergency Management Agency "Flood Insurance Study Tulare County, California, and Incorporated Areas".
3. HEC-RAS hydraulic cross-section number, as shown on Sheets 2, 3, and 4 in Appendix D.
4. Finished first floor elevation of the proposed residence is more than 5 feet higher than the 100-year BFE and more than 1 foot higher than the 500-year BFE.

Figure 3. The applicant's summary of flood elevation calculations.

Staff prepared its own hydraulic analysis comparing existing ground (EG) elevation of the project site to water surface elevations (WSEL) for the Board 100-year design flood flows, FEMA 100-year design flood flows, and the 1966 flood flows using the submitted cross sections and hydraulic data. Table 1 as previously shown on Page 5 shows the flood discharge values for comparison.

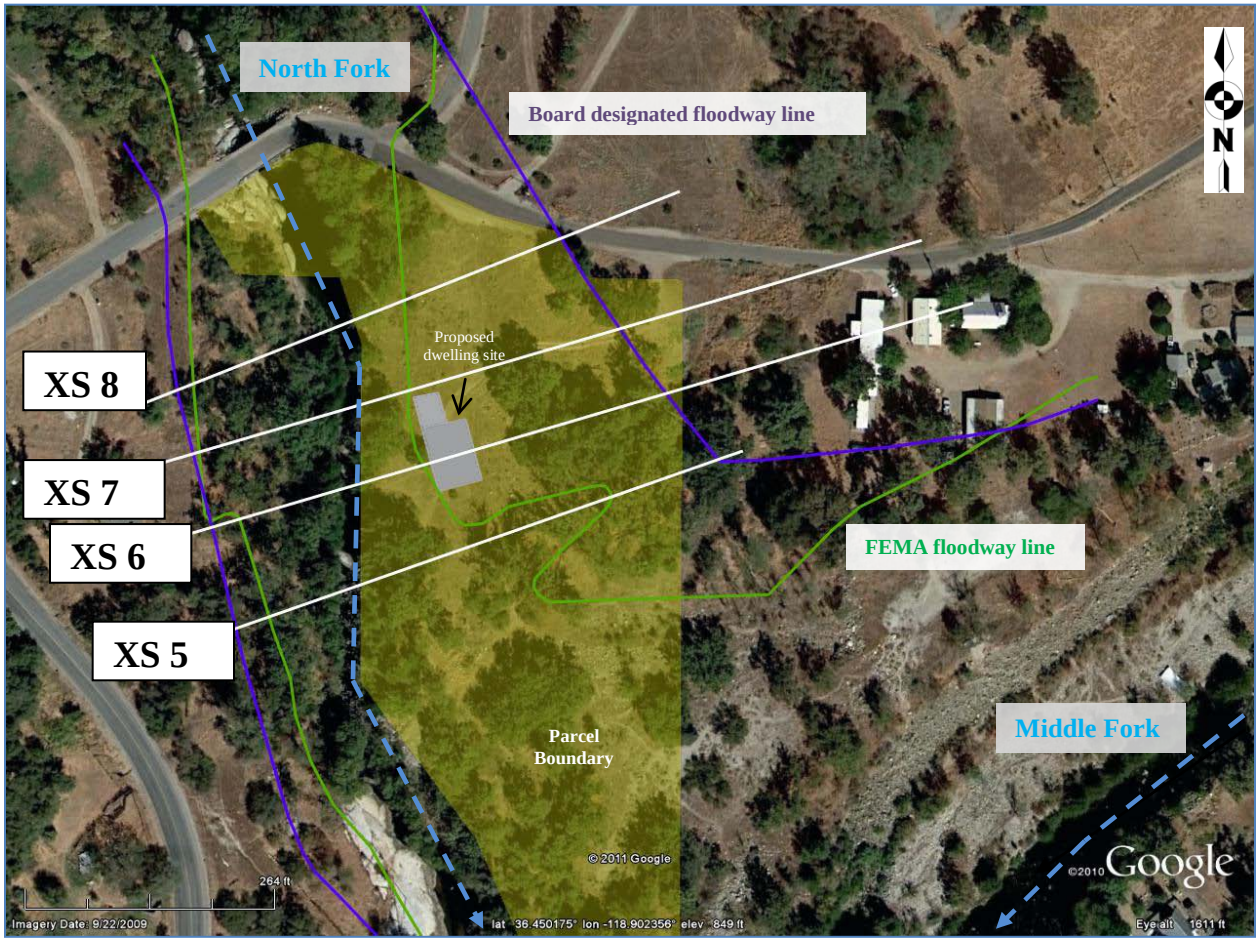

Figure 4. Modified aerial view of property with location of submitted cross sections. Source: Google Earth Pro.

Figure 4 is an aerial view of the property including the delineated floodway lines for the Board and FEMA, and the location of the submitted cross sections. Cross Section 6 (XS 6) intersects the proposed location of the residence, while Cross Section 8 (XS 8) intersects the proposed driveway location. The ground elevation of the proposed building site ranges between 849.95 feet to 851.20 feet. The next two figures summarize the results of the staff hydraulic modeling:

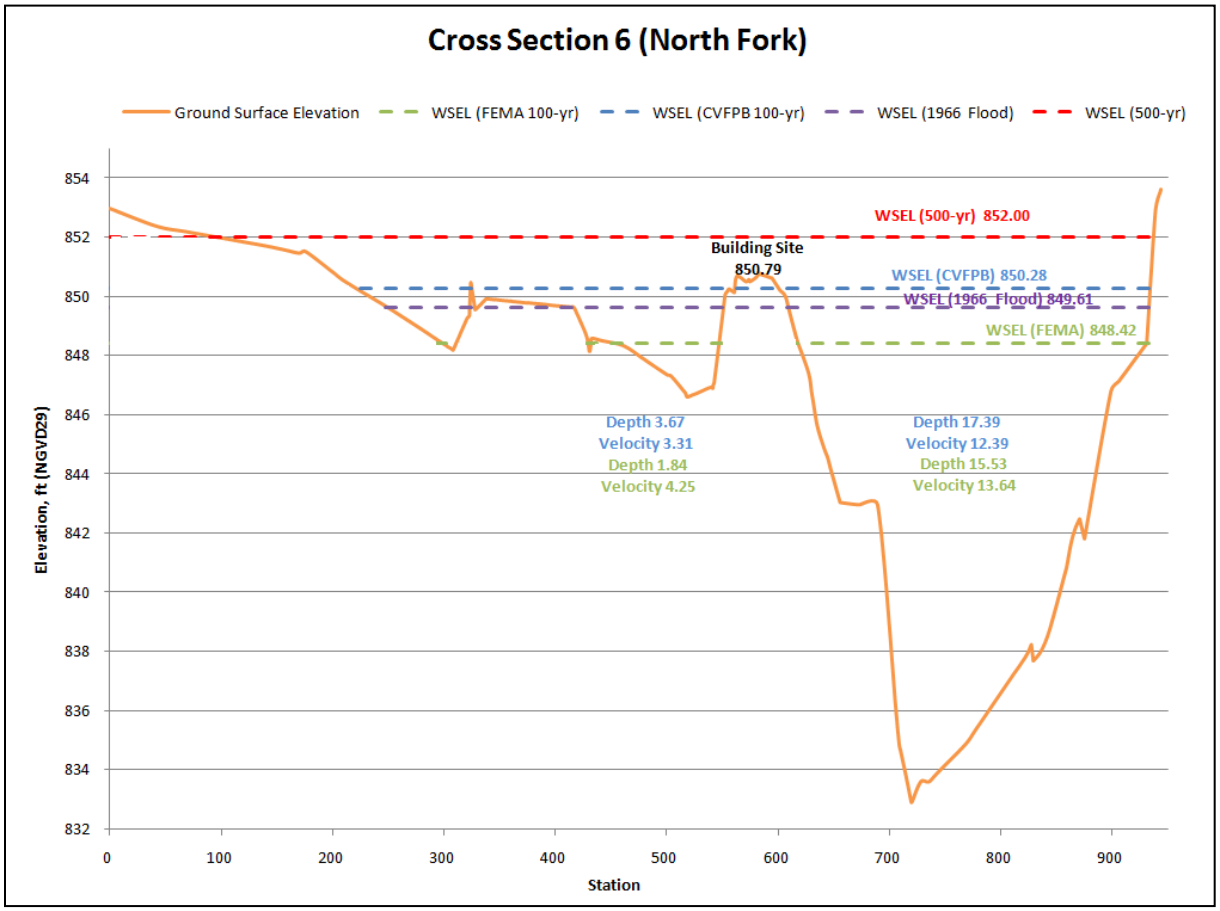

Figure 4a. Cross Section 6 - Water Surface Elevation, Depth, and Velocity Distribution Profile.

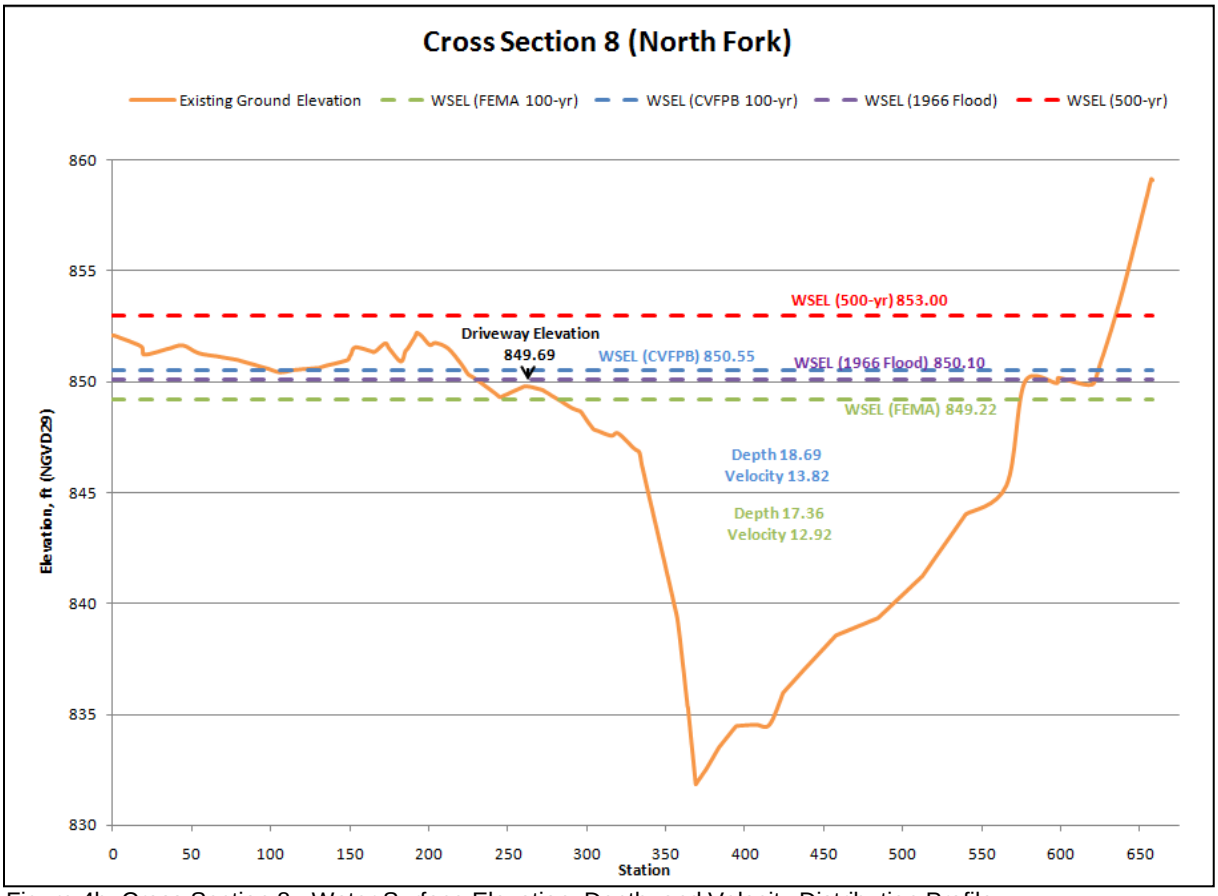

Figure 4b. Cross Section 8 - Water Surface Elevation, Depth, and Velocity Distribution Profile.

Using the Board's 100-year design flood flows, the existing ground elevation at the building site would be 0.51 feet above WSEL at the building site, as shown in Figure 4a. A section of the driveway will be 0.86 feet underwater, as shown in Figure 4d. Velocities adjacent to the building site will be subject to water velocities ranging from 3.31 feet per second to 12.39 feet per second with water depths of 3.67 feet to 19.70 feet. The 12-inch deep footing of the stem wall supporting the building pad may be subjected to undercutting by erosive floodflows.

Figures 4a-b also show values computed using 1966 flood flows, which are very close to the Board flood flows. With the 1966 flood flows the existing ground elevation of the building site will range from 0.61 to 1.25 feet, and a section of the driveway will be 0.41 feet underwater.

Also shown in Figures 4a-4b is the approximated 500-year WSEL. Although the finished floor elevation of the proposed dwelling will be 1.5 feet above the 500-year WSEL, the area surrounding the building pad will be completely inundated by floodwater. During this event the proposed driveway will be more than three feet below water, as seen in Figure 4b.

Refer to Attachment I for detailed results of staff's hydraulic analysis.

9.2 - Geotechnical Analysis

Soil materials generally found on site consist of silty sand mixture with cobbles (See Attachment D, Exhibit B). Soil type of this nature can become susceptible to scouring effects when exposed to high water flow velocities that can occur during high flood event (See Attachment J).

Figure 5 shows an aerial view of the project location. The orange dashed lines indicate scour lines on the west bank of the Middle Fork. Also note the sparseness and alignment of the tree lines to the Middle Fork near the orange dashed lines. The deposited materials between these lines are of channel bed materials consisting mostly of cobbles and boulders, which indicate that past flood events with significant flow velocities carried away these materials on to the bank. Flood events with significant flow velocities and are capable of transporting channel bed materials downstream may pose a serious threat to structures caught in the flow.

Figure 5. Aerial view of project location showing undercutting on west bank of Middle Fork.

9.3 - Relevant Permits and Board Action

- On May 25, 1990, Application No. 15365 was approved, which requested authorization to construct a private residence on the left bank overflow area of the Kaweah River at the confluence of North Fork Kaweah and Kaweah Rivers. Special Conditions have been incorporated in the permit. Specifically, Special Condition 24 state that the "permitee agrees to defend, hold harmless and indemnify the State of California" against any claims arising out of the design (Attachment L, Exhibit A).

- On July 17, 1990, Application No. 15493 was approved, which requested authorization to construct a private residence in the right bank floodway of the North Fork Kaweah River 1.1 miles upstream from the confluence with the Middle Fork of Kaweah River. Special Conditions have been incorporated in the permit. Specifically, Special Condition 10 state that the "permittee shall defend and shall hold" the State of California and the United States of America against any claims "which may arise out of failure on the permittee's part to perform the obligations under this permit" (See Attachment L, Exhibit B).

- On April 26, 1996, Application No. 16586 was denied, which requested authorization to construct a private residence on the left bank overflow area of the Middle Fork Kaweah River Designated Floodway. The denial of this application cited the

proposed work is in violation of the Board's Regulations which does not normally allow structures for human habitation within the floodways (See Attachment L, Exhibit F).

- On April 2, 2003, Marguerite Ingle, previous owner of Mr. and Mrs. Burnham's parcel (APN# 067-160-039), submitted a letter to the Board requesting authorization to allow use of the FEMA 500-year flood line for development. The letter states that there is a large knoll in her property that has never been breached by flood waters. On April 10, 2003, Board staff contacted Ms. Ingle notifying her that dwellings are not normally allowed within the designated floodway (See Attachment L, Exhibit G).

- On May 21, 2004, Board denied a request on behalf of Mr. Mike Robinson to realign the existing designated floodway boundary along the right bank of the North Fork of the Kaweah River in the Three Rivers area in order to construct a shop/barn, and an office/guest house (See Attachment L, Exhibit H). In the subsequent months Mr. Robinson submitted Application No. 17809 requesting authorization of a 40 by 50-foot barn on the right (west) bank of the Kaweah River Designated Floodway. On August 13, 2004, Board Permit No. 17809GM was issued to Mr. Mike Robinson for the requested work, subject to several special conditions. Specifically, Special Condition 26 prohibits the permitee from using the structure for human habitation (See Attachment L, Exhibit I).

9.4 - Bases for Denial

Staff recommends denial of the variance request based on the following:

- *Title 23, section 15(a)(9), Adversely affect the State Plan of Flood Control, as defined in the Water Code.*
  California Water Code 8410(a), Construction of structures in the designated floodway which may endanger life or significantly restrict the carrying capacity of the designated floodway shall be prohibited. For the purpose of t this subdivision, the word "Structures" does not include public utility electric, gas, or communication lines which may be located within the designated floodway; provided, that any permit or permits as may be required by law, other than this chapter, to so located such lines have been granted.
    - Staff Finding: The construction of this structure in the designated floodway will endanger life and restrict the flood carrying capacity, and therefore will adversely affect the State Plan of Flood Control.

- *Title 23, section 15(a)(1), Jeopardize directly or indirectly the physical integrity of levees or other works;*
    - Staff Findings: If swept away in a flood, the proposed dwelling may indirectly jeopardize the physical integrity of other works such as bridges and utilities.

- *Title 23, section 15(a)(2), Obstruct, divert, redirect, or raise the surface level of design flood or flows, or the lesser flows for which protection is provided;*

  - Staff Finding: The proposed house may obstruct and redirect the Board design flood flows, per analysis by Board Staff Doctor Sungho Lee dated April 10, 2010 (See Attachment I, Exhibit F), and as presented in the Hydraulic Analysis section of this report.

- *Title 23, section 15(a)(3), Cause significant adverse changes in water velocity or flow regimen;*
  - Staff Finding: The Hydraulic Analysis section shows that the flow velocity on the west side of the proposed building site ranges from 12 to 14 feet per second. The suggested maximum permissible mean channel velocity for sand and gravelly material is 6 feet per second (See Attachment K). An adverse change in flow regimen is expected for this site

- *Title 23, section 15(a)(6), Interfere with the ability to engage in floodfighting, patrolling, or other flood emergency activities;*
  - Staff Finding: During a Board 100-year design flood event, egress options will be limited and put the lives of the occupants at risk. A previously submitted map by the applicant shows that the surrounding area of the proposed dwelling will be inundated during a Board 100-year design flood event (See Attachment E, Exhibit B), leaving the occupants stranded. There may be a need to send emergency personnel for their safety, thereby diverting emergency flood fighting efforts away from places that may be in greater need.

- *Title 23, section 15(a)(7), Increase the damaging effects of flood flows;*
  - Staff Finding: Because the proposed dwelling is within the floodway, it will be exposed to and possibly collect large amounts of floating debris during a design flood event. Collection of floating debris has the potential to induce negative upstream and downstream effects by increasing backwater effect and reducing the carrying capacity of the waterway. It also has the potential to uproot the dwelling and carry it downstream.
  - Staff Finding: The proposed dwelling may become a floating debris hazard, potentially increasing the damaging effects of flood flows, and becoming injurious to the residents of Three Rivers and downstream reservoirs.

- *Title 23, section 15(e), If the proposed work does not meet board standards contained in article 8;*
  - Staff Finding: The proposed project does not meet Board standards. CCR Title 23 Article 8 Section 113 (b) states that *"dwellings and structures within an adopted plan of flood control must comply with the following requirements: (1) new dwellings, with the exception of dwellings for seasonal occupancy (non-flood season), are not permitted…"*

- *Title 23, section 15(f), If there has been a failure by the applicant (or person associated with the applicant through an agreement or agency relationship) to substantially comply with permit conditions on prior related permits or if there has been work performed without a permit application where the applicant has not*

supplied reasonable and convincing assurances that compliance with the board's regulations will be achieved.

- Staff Finding: The applicant has already constructed a river well that lies within the Kaweah River Designated Floodway. This work was done without prior Board authorization and is therefore in violation of Title 23 regulations. Pursuant to CCR Title 23, Section 15 (a), the Board may deny a permit "*if there has been work performed without a permit and that work is not the subject of the pending permit application."* In addition, this river well installation is in violation of Condition 13 of the Tulare County Flood Variance (See Attachment C).

9.5 – Other Bases for Denial

- The project site is within the Kaweah River Designated Floodway, and is therefore subject to Board regulations and standards as prescribed in CCR Title 23. As a matter of policy, the Board does not transfer floodway boundary lines from other maps once the designated floodway maps have been adopted. As recently as April 23, 2010 the Board denied the applicant's request to modify the adopted Kaweah River Designated Floodway pursuant to section 106 of CCR Title 23 Waters.

- The Kaweah River is also defined by Title 23 as a regulated stream and location where construction of year-round dwellings is prohibited (See section 112, Table 8.1 of Title 23). The proposed dwelling is located in a designated floodway and is subject to flooding and/or flood damage.

- Approval of permits for year round dwellings within a designated floodway is not appropriate at this time while better floodplain management policies are being developed to address the potential implications of climate change. A better policy-based approach would be to examine this region for the construction of dwellings as part of the Central Valley Flood Protection Planning process. This study will invite participation from all interested stakeholders and is the proper venue for considering broad review of Board policy and regulations for development within regulated floodways and navigational channels.

- Approval of this application may set precedence for undesirable housing development within the designated floodway. Denying this application will keep the floodway clear of new permanent residential dwellings.

10.0 - Agency Comments and Endorsements:

The comments associated with this project from all pertinent agencies are shown below:

- The Tulare County Resources Management Agency has approved a flood variance for this application with several conditions. Specifically, condition 13 states:
  - *An encroachment permit shall be required from the State Reclamation Board for the construction of any type of structure within the Kaweah River Designated Floodway* (See Attachment C).

- The U.S. Army Corps of Engineers (Corps) 208.10 comment letter was received on August 5, 2011 for this application (See Attachment B, Exhibit A). It states that "the District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project."

11.0 - CEQA Considerations:

Board staff has prepared the following CEQA determination:

No CEQA Determination or findings are necessary for the Board to deny this application. If the Board decides to approve this variance a categorically exemption covering construction of small, new structures may be obtainable.

12.0 - Section 8610.5 Considerations

1. Evidence that the Board admits into its record from any party, State or local public agency, or nongovernmental organization with expertise in flood or flood plain management:

    - The Board will make its decision based on the evidence in the permit application and attachments, this staff report, and any other evidence presented by any individual or group.

2. The best available science related to the scientific issues presented by the executive officer, legal counsel, the Department or other parties that raise credible scientific issues.

    - The accepted industry standards for the work proposed under this permit as regulated by Title 23 have been applied to the review of this application.

3. Effects of the decision on the entire State Plan of Flood Control:

    - Denial of this project will maintain the floodway clear of obstructions and keep lives away from unnecessary flood risk. Further, denial of the project is consistent with Title 23 and with the Corps Executive Order 11988, which recommends limiting development in flood prone areas.

4. Effects of reasonably projected future events, including, but not limited to, changes in hydrology, climate, and development within the applicable watershed:

    - Denial of this project will keep the floodway clear of new permanent dwellings and allow the floodway to successfully convey flood waters with minimal obstruction.

13.0 - Staff Recommendation

The Board's Designated Floodway is a nonstructural approach designed to restrict developments in the area required for the passage of a design flood and to keep lives out of harm's way during flood events. Once formally adopted by the Board, the designated floodway becomes an official standard of management to minimize flood risk to human lives, properties, and flood control works, and to preserve the flood-carrying capacity of the floodway.

Staff concludes that the Board standards remain appropriate for this application. Granting individual variances to Board standards to allow construction of new dwellings within the Board floodways is contrary to sound flood management practices and policies and State and Federal public safety missions. Construction of structures in the designated floodway which may endanger life is prohibited by Water Code Section 8410 criteria. For these reasons staff recommends that Board deny the variance request for Application No. 18670 through Resolution 11-25.

14.0 - List of Attachments

A. Resolution No. 11-25
B. Application No. 18670
   Exhibit A – Corps 208.10 Comment Letter, August 5, 2011
   Exhibit B – Cover Letter, April 21, 2011
   Exhibit C – Hydraulics Analysis Letter, January 8, 2010
   Exhibit D – Notice of Hearing Letter, July 13, 2011
C. Tulare County RMA Flood Variance, April 7, 2011
D. Tulare County HHSA Sanitary Waste Disposal Permit
   Exhibit A – Sanitary Waste Disposal Permit, September 27, 2005
   Exhibit B – Central Valley Testing Feasibility Study, August 30, 2005
E. Previously Submitted Documents by Applicant
   Exhibit A – Roberts Engineering Letter, July 23, 2008
   Exhibit B – Floodplain Study Plan
F. FEMA Flood Insurance Study of Tulare County, June 16, 2009
   Exhibit A – Table 6 – Summary of Discharges (page 28)
   Exhibit B – Flood Insurance Rate Map, Map Number 06107C0709E
G. Kaweah River Designated Floodway Map, October 18, 1974
H. USACE Flood Plain Information, Kaweah River, October, 1967, Definition and Estimated Peak Discharge Flows (pp. 2 and 4)
I. Staff Hydraulic Analysis
   Exhibit A – Summary of Staff Hydraulic Analysis
   Exhibit B – Cross Section 5
   Exhibit C – Cross Section 6
   Exhibit D – Cross Section 7
   Exhibit E – Cross Section 8
   Exhibit F – Dr. Sungho Lee Hydraulic Analysis, Dated April 10, 2010
J. URS Erosion Screening Process Report, April, 2009 (Page 7)

K Suggested Maximum Permissible Mean Channel Velocities
L. Related Applications, Permits, and Board Actions
Exhibit A – Application No. 15365, May 25, 1990
Exhibit B – Permit No. 15365, Board Staff Denial Letter, March 02, 1990
Exhibit C – Permit No. 15365, Corps 208.10 Comment Letter, Dec. 14, 1989
Exhibit D – Permit No. 15493, July 11, 1990
Exhibit E – Permit No. 15493 Board Staff Denial Letter, June 18, 1990
Exhibit F – Application No. 16586 Board Staff Denial Letter, April 26, 1996
Exhibit G – Letter of Inquiry, April 2, 2003
Exhibit H – Board Staff Denial Letter, June 1, 2004
Exhibit I – Permit No. 17809GM, August 13, 2004

STATE OF CALIFORNIA
THE RESOURCES AGENCY
CENTRAL VALLEY FLOOD PROTECTION BOARD

RESOLUTION NO. 11-25

FINDINGS AND DECISION OF HEARING FOR
ENCROACHMENT APPLICATION NO. 18670
MR. AND MRS. MARTIN BURNHAM, SECTION 13 TOWNSHIP 17S RANGE 28E MDB&M
NORTH FORK OF THE KAWEAH RIVER, TULARE COUNTY

WHEREAS, Mr. and Mrs. Martin Burnham (applicant) is owner of the property known as Tulare County Assessor's Parcel No. 067-160-039 and portion of 067-120-010 located in Section 13, Township 17 South, Range 28 East, Mount Diablo Base and Meridian; and

WHEREAS, the property is located at 42490 Kaweah River Drive in Three Rivers, on the east (left) bank levee of the North Fork of the Kaweah River within the Kaweah River Designated Floodway; and

WHEREAS, the applicant proposes to construct a private residence and adjacent garage with residential appurtenances at the property along the east (left) bank of the North Fork of the Kaweah River; and

WHERAS, the applicant has already constructed a river well within the Kaweah River Designated Floodway without prior Board authorization; and

WHEREAS, the Kaweah River Designated Floodway was adopted by the Board on October 18, 1974, for the purpose of limiting encroachments in areas required for the safe passage of a design flood; and

WHEREAS, the Central Valley Flood Protection Board ("Board") has the authority to deny approval of a permit application if the Board determines that the proposed work will or may "*Interfere with the successful execution, functioning or operation of any plan of flood control adopted by the board"* (Water Code § 8723); and

WHEREAS, the Board may deny a permit application if the proposed work could:

"*Jeopardize directly or indirectly the physical integrity of levees or other works"* (CCR 23 § 15 (a) (1));

"Obstruct, divert, redirect, or raise the surface level of design floods or flows, or the lesser flows for which protection is provided" (CCR 23 § 15 (a) (2));

"Cause significant adverse changes in water velocity or flow regimen" (CCR 23 § 15 (a) (3));

"*Interfere with the ability to engage in floodfighting, patrolling, or other flood emergency activities*" (CCR 23 § 15 (a) (6);

"*Be injurious to, or interfere with, the successful execution, functioning, or operation of any adopted plan of flood* control" (CCR 23 § 15 (a) (8);

"*If there has been a failure by the applicant (or persons associated with the applicant through an agreement or agency relationship) to substantially comply with permit conditions on prior related permits or if there has been work performed without a permit and that work is not the subject of the pending permit application where the applicant has not supplied reasonable and convincing assurances that compliance with the board's regulations will be achieved*" (CCR 23 § 15 (a) (f); and

WHERAS, the construction of this structure in the designated floodway will endanger life and restrict the flood carrying capacity, and therefore will adversely affect the State Plan of Flood Control.

WHEREAS, if swept away in a flood, the proposed dwelling will indirectly jeopardize the physical integrity of other works such as bridges and utilities.

WHEREAS, the proposed house may obstruct and redirect the Board design flood flows; and

WHEREAS, An adverse change in flow regimen is expected for this site because the Hydraulic Analysis shows that the flow velocity on the west side of the proposed building site ranges from 12 to 14 feet per second and the suggested maximum permissible mean channel velocity for sand and gravelly material is 6 feet per second; and

WHEREAS, during a Board 100-year design flood event, egress options will be limited and put the lives of the occupants at risk. There may be a need to send emergency personnel for their safety, thereby diverting emergency flood fighting efforts away from places that may be in greater need; and

WHEREAS, because the proposed dwelling is within the floodway, it may collect large amounts of floating debris during a design flood event. Collection of floating debris has the potential to induce negative upstream and downstream effects by increasing backwater effect and reducing the carrying capacity of the waterway. It also has the potential to uproot the dwelling and carry it downstream; and

WHEREAS, the proposed dwelling may become a floating debris hazard, potentially increasing the damaging effects of flood flows, and becoming injurious to the residents of Three Rivers and downstream reservoirs; and

WHEREAS, the applicant must comply with CR Title 23 Section 107 which states "*the following uses may be permitted in the designated floodway so long as alone or cumulatively, in the judgment of the board, they will not unduly impede the free flow of water in the floodway or jeopardize public safety: (g) Structures that are designed to have a minimum effect upon the flow of water and are firmly anchored to prevent the structure from flotation, provided that normally no structures for human habitation will be permitted*;" and

WHEREAS, the proposed project does not meet Board standards. CCR Title 23 Article 8 Section 113 (b) states that "*dwellings and structures within an adopted plan of flood control*

must comply with the following requirements: (1) new dwellings, with the exception of dwellings for seasonal occupancy (non-flood season), are not permitted…;" and

WHEREAS, the application will require a variance to Board standards section 113(b), subject to Board approval; and

WHEREAS, the applicant has already constructed a river well that lies within the Kaweah River Designated Floodway. This work was done without prior Board authorization and is therefore in violation of Title 23 regulations. Pursuant to CCR Title 23, Section 15 (a), the Board may deny a permit "*if there has been work performed without a permit and that work is not the subject of the pending permit application*;" and

WHEREAS, the project site is within the Kaweah River Designated Floodway, and is therefore subject to Board regulations and standards as prescribed in CCR Title 23; and

WHEREAS, the Kaweah River is also defined by Title 23 as a regulated stream and location where construction of year-round dwellings is prohibited (See section 112, Table 8.1 of Title 23).

WHEREAS, approval of this application may set precedence for housing development within the designated floodway. Denying this application will keep the floodway clear of new permanent residential dwellings.

WHEREAS, for all these reasons, staff recommends the Board determine the project is statutorily exempt from CEQA and deny authorization of Application No. 18670; and

WHEREAS, the Board has conducted a public hearing on Permit Application No. 18670 and has reviewed the Staff Report, the documents and correspondence in its file, and given the applicant the right to testify and present evidence on their behalf;

NOW, THEREFORE, BE IT RESOLVED THAT,

Findings of Fact:

1. The Central Valley Flood Protection Board hereby adopts as findings the facts set forth in the Staff Report.

2. The Central Valley Flood Protection Board hereby adopts as findings the facts set forth in the Staff Report. The Board has reviewed the Figures, Attachments, and References listed in the Staff Report.

CEQA Considerations

Board staff has prepared the following CEQA determination: No CEQA Determination or findings are necessary for the Board to deny an application or to enforce its regulations.

3. **Custodian of Record**. The custodian of the CEQA record for the Board is its Executive Officer, Jay Punia, at the Central Valley Flood Protection Board Offices at 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

Considerations pursuant to Water Code section 8610.5

4. **Evidence Admitted into the Record**. The Board has considered all the evidence presented in this matter, including the application, Staff Report, CEQA findings and USACE recommendation. The Board has also considered all other correspondence received by the Board and in the Board's files and related to this matter.

   The custodian of the file is Executive Officer Jay Punia at the Central Valley Flood Protection Board, 3310 El Camino Avenue, Room 151, Sacramento, California 95821.

5. **Best Available Science**. In making its findings the Board has used the best available science relating to the issues presented by all parties. The accepted industry standards for the work proposed under this application as regulated by Title 23 have been applied to the review of this application.

8. **Effects on State Plan of Flood Control**. Denial of this project will maintain the floodway clear of obstruction and prevent potential adverse impacts to Kaweah River Designated Floodway, an adopted plan of flood control.

9. **Effects of Reasonably Projected Future Events**. Denial of this project will keep the floodway clear of obstructions and allow for the successful passage of a design flood.

Other Findings/Conclusions regarding Permit Application

10. The Board hereby denies Application No. 18670 for a variance for the above-stated reasons.

11. This resolution shall constitute the written decision of the Central Valley Flood Protection Board in the matter of Application No. 18670.

PASSED AND ADOPTED by vote of the Board on _____, 2011

_____
Benjamin F. Carter
President

_____
Francis ("Butch") Hodgkins
Secretary

DEPARTMENT OF THE ARMY
U.S. Army Engineer District, Sacramento
Corps of Engineers
1325 J Street
Sacramento, California 95814-2922

REPLY TO
ATTENTION OF

Flood Protection and Navigation Section (18670)

AUG 05 2011

Mr. Jay Punia, Executive Officer
Central Valley Flood Protection Board
3310 El Camino Avenue, Room 151
Sacramento, California 95821

Dear Mr. Punia:

We have reviewed a permit application by Martin T. and Ellen K. Burnham (application number 18670). This project includes constructing a 50 foot by 80 foot residence; a 40 foot by 40 foot garage/shop; and residential home appurtenances including, but not limited to, a septic system, electric, water, and telephone lines, a fire hydrant, and propane and fire suppression tanks on land within the Kaweah River Designated Floodway. The project is located in the unincorporated area of Tulare County known as Three Rivers, 500 feet east of the North Fork Drive and Kaweah River Drive intersection at 36.4495°N 118.9029°W NAD83, Tulare County, California.

The District Engineer has no comments or recommendations regarding flood control because the proposed work does not affect a federally constructed project.

Based upon the information provided, no Section10 or Section 404 permit is needed.

A copy of this letter is being furnished to Mr. Don Rasmussen, Chief, Flood Project Integrity and Inspection Branch, 3310 El Camino Avenue, Suite LL30, Sacramento, CA 95821.

Sincerely,

Meegan G. Nagy, P.E.
Chief, Flood Protection and Navigation Section

April 21, 2011
015307000

Ms. Mitra Emami, PE
Senior Engineer, Water Resources
Floodway Protection Section
Central Valley Flood Protection Board
3310 El Camino Ave., Rm. 151
Sacramento, CA 95821

Re: Application for a Central Valley Flood Protection Board Encroachment Permit

Dear Ms. Emami:

AMEC Geomatrix, Inc. (AMEC) is pleased to submit this encroachment permit application (application) to the Central Valley Flood Protection Board (CVFPB) on behalf of Martin and Kaye Burnham. The proposed project is construction of a residence on a portion of the Burnham's property that is within the Kaweah River Designated Floodway. This application is compliant with CVFPB standards because detailed hydraulic analysis by the Federal Emergency Management Agency (FEMA) and the Burnham's consultant team clearly demonstrates that the entire project is outside the 100-year floodplain. The FEMA and AMEC hydraulic analyses demonstrate that:

- The proposed project will have no effect on the 100-year base flood elevation because there will be no modification of ground surface elevations within the 100-year floodplain;
- The finished first floor elevation of the proposed residence is about 2 feet above grade, and more than 5 feet above the 100-year base flood elevation; and
- The finished first floor elevation is more than 1 foot higher than the FEMA 500-year base flood elevation.

Enclosed are two hardcopies of the completed application with appendices. Each hardcopy contains a CD containing electronic versions of the entire submittal package. Appendices to the application include:

- Appendix A - annotated pictures of the property;
- Appendix B - completed Environmental Assessment Questionnaire for Applications for Central Valley Flood Protection Board Encroachment Permits and the Title Report (Grant Deed) for the subject property;
- Appendix C – documents prepared by Tulare County, including an approved Flood Variance Application and approved California Environmental Quality Act documents that find the project to be categorically exempt.
- Appendix D - maps and cross-sections (5 sheets) providing details of the projected 100-year flood event, and showing the layout and dimensions of the house, attached garage, and driveway. Maximum dimensions of the house and garage are 56 by 80 feet and 32 by 40 feet, respectively. The proposed driveway provides a route of ingress/egress that would not be inundated during a 100-year flood event;

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1281 E. Alluvial Avenue, Suite 101
Fresno, California
USA 93720-2659
Tel (559) 264-2535
Fax (559) 264-7431
www.amecgeomatrixinc.com

- Appendix E – a review of available hydrologic and hydraulic data (including FEMA analysis) prepared by AMEC. This summary has been reviewed by CVFPB staff.
- Appendix F – a summary of calculated flood elevations and printouts documenting the detailed topographic and HEC-RAS hydraulic analysis performed by Don Stivers Surveying and AMEC. The attached CD also contains digital HEC-RAS input files.

We look forward to working with the Central Valley Flood Protection Board on this project. Should you have any questions regarding this application, please contact me at (559) 285-4369.

Sincerely yours,
AMEC Geomatrix, Inc.

Martin E. Spongberg, PhD, PE, PG
Senior Engineer

cc: Martin Burnham

January 8, 2010

Project 15307.000

Mr. Len Marino, PE
Central Valley Flood Protection Board
Joint Operations Center
3310 El Camino Avenue, Suite LL40
Sacramento, California 95821

Subject: **Summary of Available Hydrologic and Hydraulic Data Relevant to the Burnham Designated Floodway Maps Revision**
Three Rivers, California

Dear Mr. Marino:

On behalf of Mr. Martin Burnham, AMEC Geomatrix, Inc. (AMEC), is submitting this letter summarizing available hydrologic and hydraulic data relevant to the Designated Floodway Maps Revision for the Burnham property near Three Rivers, California. The revision is being requested based on an evaluation of the best available data for delineating the 100-year flood boundary.

BACKGROUND

The Three Rivers, California, Designated Floodway Maps (CRB, 1975) were prepared 35 years ago from a sparse dataset, primarily third party observations of encroachment by the December 1966 flood of record. Subsequent detailed hydrologic and hydraulic studies were conducted by the Federal Emergency Management Agency (FEMA; FEMA, 2009) and others. In a letter to the Central Valley Flood Protection Board (CVFPB) dated July 23, 2008, Roberts Engineering, on behalf of Mr. Martin Burnham, requested modifications to the Designated Floodway Maps (CRB, 1975) in the vicinity of Mr. Burnham's parcel to incorporate engineering analysis not available when the Designated Floodway Maps were prepared. Mr. Burnham's parcel on the east bank of the North Fork Kaweah River (North Fork) near the confluence with the Middle Fork Kaweah River (Middle Fork) was included in the detailed FEMA (2009) floodplain mapping project.

Information pursuant to the requested map modification was presented at the monthly CVFPB meeting on October 23, 2009, by CVFPB staff (Mr. Dan Fua and Mr. David Williams) and by Dr. Marty Spongberg of AMEC acting on behalf of Mr. Burnham. At that meeting, CVFPB staff were directed by the Board to work with Mr. Burnham's engineers to update the existing Designated Floodway Maps to incorporate the best data currently available.

A December 7, 2009, conference call was held to discuss the status of the map modification project. Participants included: CVFPB staff (Mr. Len Marino, Mr. Dan Fua, Mr. David Williams, Dr. Sungho Lee), Mr. Martin Burnham, Ms. Kaye Burnham, and Dr. Marty Spongberg. Because there was disagreement regarding the best data to use for map modification purposes, CVFPB

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staff asked AMEC to prepare this summary of available hydrologic and hydraulic data. Our findings are based on review of the following documents and additional information provided by CVFPB staff (via electronic files, email communication, and conversations):

- "Flood Plain Information, Kaweah River, Three Rivers, California", U.S. Army Corps of Engineers,1967 (USACE, 1967)
- "Kaweah River Designated Floodway, Tulare County, Three Rivers Area", State of California, Reclamation Board, 1975 (CRB, 1975)
- "Flood Insurance Study, Tulare County, California, Unincorporated Areas", Federal Emergency Management Agency, 1986 (FEMA, 1986)
- "Kaweah River Basin, California, Hydrology", U.S. Army Corps of Engineers,1990 (USACE, 1990)
- "Flood Insurance Study, Tulare County, California, and Incorporated Areas", Federal Emergency Management Agency, 2009 (FEMA, 2009)

HYDROLOGIC ANALYSES FOR ASSESSING THE 100-YEAR RECURRENCE INTERVAL STREAMFLOW

Designated Floodway Maps are based on flooding with a 100-year recurrence interval (a 1 percent [%] chance of occurrence in any year). CVFPB staff have stated that the appropriate flow rates to use for hydraulic modeling to establish the Designated Floodway are calculated flow rates from the 1967 U.S. Army Corps of Engineers (USACE) report. The flow rates listed on existing Designated Floodway Maps (CRB, 1975) are 24,000 cubic feet per second (cfs) on the North Fork at the confluence with the Middle Fork and 80,000 cfs on the Middle Fork just downstream of the confluence. These so-called Intermediate Regional Flood (IRF) flows (USACE, 1967) are based on hypothetical rainfall distributions, rainfall/runoff computations, hydrograph estimation in several sub-basins, and routing and combining the hydrographs downstream. These calculated IRF flows for the North and Middle Forks are not the best estimate of 100-year flows for several reasons:

- The calculated flows are outdated. Calculations were based on a database that is more than 40 years old.
- The calculated flows are approximations requiring a multitude of assumptions, estimations, and computations to derive streamflow from rainfall data. A later USACE report (USACE, 1990) refers to calculated IRF flows as a "hypothetical flood".
- More precise data are available, United States Geological Survey (USGS) measured streamflow on both the North and Middle Forks.

The flood of record in the Three Rivers area occurred in December 1966, in which flows on the Middle Fork and North Fork were measured at 73,000 and 23,900 cfs, respectively (based on USGS gages 11209900 and 11209500, respectively). These are are less than calculated IRF flows. The 1990 USACE report concludes that the 1966 flood had a magnitude "greater than a 100-year event". Based on statistical evaluation of measured streamflow data, FEMA estimated that the 1966 flood on both the North and Middle Forks was a 140-year event (FEMA, 2009).

The best available estimate of 100-year peak flows (based on statistical evaluation of measured streamflow data) is contained in the FEMA Flood Insurance Study (FEMA, 2009):

- 62,800 cfs on the Middle Fork downstream of the North Fork confluence
- 20,700 cfs on the North Fork at the confluence with the Middle Fork

HYDRAULIC ANALYSES FOR ASSESSING THE 100-YEAR RECURRENCE INTERVAL FLOOD LINE

The appearance of the boundary lines on the Designated Floodway Maps (CRB, 1975) in the vicinity of the northeast portion of Mr. Burnham's parcel (labeled as "Subject Parcel" on attached Sheet 1) suggest that the maps are based on sparse data. The two straight line segments comprising the boundary line in this area do not appear to account for local topography. However, it is not possible to assess the quality of the data used to develop the map because the source data have reportedly been misplaced (personal communication, CVFPB staff, 2009). Based on information received from CVFPB staff, the existing Designated Floodway Maps are based on third party observations of encroachment by the 1966 flood of record (a 140-year event), possibly augmented by hydraulic analysis using IRF flow rates (which exceed the 140-year recurrence interval flow rates) from the 1967 USACE report.

The Designated Floodway Maps should be modified to incorporate detailed hydraulic analysis utilizing the best available estimate of 100-year flows, which is available from FEMA (FEMA, 2009). FEMA hydraulic analysis is based on additional, more precise flow and topographic data than were available when the existing Designated Floodway Maps (CRB, 1975) were prepared. The FEMA hydraulic analysis was conducted on the North Fork from the Middle Fork confluence to a half mile upstream of the confluence, and for several miles of the Middle Fork upstream and downstream of the North Fork confluence. Based on comments made at the October 23, 2009, hearing, the CVFPB concurs that it is appropriate to use this study (which is called a "detailed study" on the CVFPB webpage) to update the existing Designated Floodway Maps.

A map showing requested modifications based on FEMA (FEMA, 2009) analysis is attached (Sheet 1). A full size version of this map and the FEMA map will be sent separately. A PDF version of the FEMA (FEMA, 2009) report was sent to your office via email. Should you wish to review the FEMA analysis, information about the supporting data are available by contacting FEMA (Federal Insurance and Mitigation Division, 1111 Broadway, Suite 1200, Oakland, California, 94607-4052).

We are available to meet to discuss this information with CVFPB and USACE staff at your earliest convenience. We will call in 1 week to schedule an appointment.

Please call Marty Spongberg if you have any questions or if we may provide additional information.

Sincerely yours,
AMEC Geomatrix, Inc.

Martin E. Spongberg

Martin Spongberg, PhD, PE, PG
Senior Engineer

Philip B. Ross, PG
Principal Hydrogeologist

Attachment: Sheet 1

cc: Mr. Martin Burnham

STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY EDMUND G. BROWN JR., GOVERNOR

CENTRAL VALLEY FLOOD PROTECTION BOARD
3310 El Camino Ave., Rm. 151
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
PERMITS: (916) 574-2380 FAX: (916) 574-0682

July 13, 2011

Mr. and Mrs. Martin Burnham
650 West El Repetto Drive
Monterey Park, CA 91754-5344

Subject: Encroachment Permit Application No. 18670

Dear Mr. & Mrs. Burnham:

This letter is in reference to your Encroachment Permit Application No. 18670 which was submitted to the Central Valley Flood Protection Board on April 21, 2011, to construct a 50-ft. by 80-ft. private residence and a 40-ft. by 40-ft. garage/shop, with residential home appurtenances including, but not limited to, underground utilities, driveway, septic system, and fire suppression and propane tanks on land within the Kaweah River Designated Floodway, in the unincorporated area of Tulare County known as Three River, California 93271 (Section 13, 17S, 28E, M.D.B.&.M.).

Because the application proposes construction within a designated floodway, the applicant must comply with California Code of Regulations (CCR) Title 23 Waters, Division 1, Section 107 which states the following:

> *Section 107, The following uses may be permitted in the designated floodway so long as alone or cumulatively, in the judgment of the board, they will not unduly impede the free flow of water in the floodway or jeopardize public safety: (g) Structures that are designed to have a minimum effect upon the flow of water and are firmly anchored to prevent the structure from flotation, provided that normally no structures for human habitation will be permitted.*

The applicant bears the burden of providing evidence to support these findings. In addition, even if the findings in section 107 can be made, Board standards prohibit construction of new dwellings for year-round human habitation within an adopted plan of flood control. Specifically, CCR Title 23 Waters, Division 1 states the following:

> *Section 113(b), Dwellings and structures within an adopted plan of flood control must comply with the following requirements: (1) New dwellings, with the exception of dwellings for seasonal occupancy (nonflood season), are not permitted except as provided in subdivisions (d) and (e) of this section.*
>
> NOTE: Subdivisions (d) and (e) do not apply to this location.

Therefore, the application will require a variance to section 113(b), subject to Board approval. Accordingly, this application is scheduled for a variance hearing at the August 26, 2011 Board

meeting. To obtain a variance, the applicant must clearly state why compliance with the Board's standards is infeasible or not appropriate. Again, the applicant bears the burden of providing evidence to support these findings. Board staff has reviewed the application and will make the recommendation that it is not appropriate to locate the proposed new dwelling within the designated floodway.

The Friday, August 26, 2011 variance hearing for this application will be held at:

State of California
Resources Building Auditorium, First Floor
1416 Ninth Street
Sacramento, California 95814

A staff report will be provided to you prior to the hearing. If you have any additional documents you wish board staff to consider, you may send them to our office at least 15 days prior to the hearing. You may also present them to the board in person at the hearing. Computer presentation equipment will be available for USB drives to show photos or exhibits to the hearing audience. A printable version of CCR Title 23 Board regulations can be obtained at http://www.cvfpb.ca.gov.

If you have any questions or need further information, please contact Martin Janolo at (916) 574-0685, or by e-mail at mjanolo@water.ca.gov

Sincerely,

Curt Taras, PE, MSCE, Chief
Floodway Encroachment and
Enforcement Branch

NEWSPAPER PUBLICATION AND SPECIAL NOTICING REQUEST

Project Number:	Applicant:	Agent
PFV10-001(A)	Burnham	Stivers & AMEC Geomatrix

Hearing Date & Time		
Decision Making Body	**Date**	**Time**
Board of Supervisors		
Planning Commission		
Zoning Administrator	4/7/2011	
Site Plan Review Committee		

Newspaper and Date		Meeting Location	
Valley Voice	3/24/11	RMA Commission Meeting Room	☒
Visalia Times-Delta		Board of Supervisor's Chambers	☐
Tulare Advance Register		Other (specify):	☐
Porterville Recorder		**Recipients**	
Hanford Sentinel		State Clearing House (NOC required)	☐
Other:		Planning Commissioners	☐
		Board of Supervisors	☐
		Other (specify): _____	☐

Type of Hearing Notice / Environmental Document Review Period / Date	
☒ Notice of Exemption – 10 days	To:
☐ Negative Declaration – 20 days	To:
☐ Negative Declaration – 30 days	To:
☐ Mitigated Negative Declaration – 30 days	To:
☐ Mitigated Negative Declaration – 45 days	To:
☐ EIR Prepared for Project – ___ days	To:
☐ Prior ND/MND Prepared for _____ (considered adequate)	Date Prepared:
☐ Prior EIR Prepared for _____ (considered adequate)	Date Prepared:

Planner Signature:

ate Mailed: _____ **Date Faxed:** _____ **Dated E-Mailed:** _____

Administration Staff Signature:

Ocl. 2010/CB

ZONING ADMINISTRATOR
Benjamin Kimball

RESOURCE MANAGEMENT AGENCY
COUNTY OF TULARE
ZONING ADMINISTRATOR AGENDA

5961 S. Mooney Blvd
Visalia, CA
93277
624-7000 Phone
730-2653 Fax

PROJECT NO.: PFV 10-001(ZA)	**AGENDA DATE:**	4/7/2011
APPLICANT: Martin & Ellen Burnham	**AGENDA ITEM NUMBER:**	3.B
AGENT: Don Stivers Land Surveying, & AMEC Geometrix, Inc.	**AGENDA ITEM TYPE**	
SUBJECT: Consider a variance from Ordinance No. 2726, Section 7-27-1000, et seq., to allow the construction a single family residence in the F-1 (Primary Flood Plain) Zone.	Presentation	
	Consent Calendar	
	Unfinished Business	
	New Business	
	Public Hearing	X
	Continued Public Hearing	
	Discussion	
	Other:	
Environmental Document – Categorically Exempt	**ACTION REQUESTED**	
	Minute Action – Motion Reflected in the Zoning Administrator Minutes	
	Decision	X
CONTACT PERSON: Nick Hahn		

REQUEST(S):

That the Zoning Administrator: Find the project to be exempt from the requirements of the California Environmental Quality Act and conditionally approve Flood Variance No. PFV 10-001 (ZA), requested by Martin & Ellen Burnham, 650 El Repetto, Monterey Park, CA 91754 (Agent: Don Stivers Land Surveying, 40507 Sierra Drive, Three Rivers, CA 93271) to allow the construction a single family residence in the F-1 (Primary Flood Plain) Zone on property located approximately 500 feet east of the intersection of North Fork Drive and Kaweah River Drive, in Three Rivers.

ZONING ADMINISTRATOR ACTION:

Option No. 1: Accept the environmental determination that the project is exempt from the requirements of the California Environmental Quality Act, and approve the draft Decision (Attachment No. 1) subject to the recommended findings and conditions of approval.

Option No. 2: Accept the environmental determination that the project is exempt from the requirements of the California Environmental Quality Act, and approve the draft Decision (Attachment No. 1) subject to modifications through addition or deletion of conditions and / or findings as discussed.
Option No. 3: Do not accept the environmental determination that the project is exempt from the requirements of the California Environmental Quality Act based upon findings as may be deemed appropriate by the Zoning Administrator and deny Flood Variance No. PFV 10-001 (ZA).
Option No. 4: Refer back to Staff for further study and report.

BACKGROUND:

The property owner wants to build a home on the northwest portion of the property. The subject site contains approximately 6.91 acres; however, a majority of the site is located within the State Designated Kaweah River Floodway which prohibits the construction of residences. The northeast corner of the site is outside of the state designated floodway and would be considered suitable for development; however, the area is irregular in shape and does not contain sufficient area to accommodate typical development of a single family residence.

The designated 100-year floodway affecting the site as delineated by County and the Central Valley Flood Protection Board are not consistent with the 100-year boundary as established by the Flood Emergency Management Agency (FEMA). The property owner's engineer conducted flood studies demonstrating that FEMA's updated 2009 100-year flood control boundaries are more accurate than the boundaries adopted by the County greater than a quarter century ago.

The existence of conflicting flood boundary lines in conjunction with multi-agency jurisdiction applicable to this property presents significant challenges for the property owner with regard adopting common boundaries for areas of special flood hazard. Approval of a flood variance is the only legally feasible method of permitting construction of a residence at the site until such time that respective flood designations of the site are updated to reflect the most recent and up to date flood study data.

ZONING AND LAND USE:

Site: F-1 (Primary Flood Plain Zone) & R-A-43 (Rural Residential – 43,000 square feet); the proposed development area is located on a small ridge that parallels the north fork of the Kaweah River, located approximately 800 feet north of the confluence of the north fork and main fork of the Kaweah River. The majority of the subject parcel is located within the Kaweah River Designated Floodway and is zoned F-1.

SUBJECT: Flood Variance No. 10-001 (ZA)
DATE:

GENERAL PLAN ELEMENTS:

Land Use Element: The portion of the subject site involved in the variance request is within the Three Rivers Community Plan, which designates the site as "Kaweah River Designated Floodway."

Urban Boundaries Element: The subject site is within the Urban Development Boundary of Three Rivers.

1972 Environmental Resources Management Element (ERME), Open Space Plan: The ERME provides that urban growth should not occur in flood plains, near shorelines, or scenic and historic sites, valuable resource lands, aquifer recharge areas and other protection areas designated on the Open Space Plan, unless such use can be designated to be compatible and unintrusive.

The proposed residential home will be constructed in a clear portion of the property without significant impacts to riparian areas. A Biological survey was conducted by consulting biologist, Hal D. Boley, MA to analyze the potential impacts to special status species and riparian habitat. The Biologist's results showed "the northern portion of the property is herbaceous cover with sparse tree cover. The existing available home site has no tree population."

FLOOD DAMAGE PREVENTION REQUIREMENTS:

FIRM Zone(s): The subject property is located within Zones AE, X (0.2 percent) and X of Panel No. 709 of the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 065066 dated June 16, 2009.

The proposed building site is located within FEMA Zone X (0.2 percent). Construction of buildings within a shaded Zone X (0.2 percent chance flood) requires no specific flood mitigation measures, however, it is recommended that all finished floor levels be elevated one (1) foot above adjacent natural ground.

FBFM Designation: A portion of the subject site is located within the boundaries the Kaweah River designated floodway of the State Reclamation Board. An encroachment permit shall be required from The State Reclamation Board for the construction of any type of structure within the designated floodway.

The consultation response received from the Tulare County Engineering Department, dated November 9, 2010, indicates the proposal satisfies the requirements for a variance pursuant to 44 CFR 60.6 (a) (7).

SUBJECT: Flood Variance No. 10-001 (ZA)
DATE:

MANDATORY FLOOD VARIANCE FINDINGS:

The Zoning Administrator, after considering all of the evidence presented shall make the following findings prior to approval of the Flood Variance.

1. A showing of good and sufficient cause has been made.

2. Failure to grant the variance would result in exceptional hardship to the applicant.

   The subject property is affected by special circumstances such as size, shape, topography, and proximity to the Kaweah River which deprive the property owner of privileges enjoyed by other properties in the vicinity and under identical zoning classification. The majority of the site is comprised of F-1 (Primary Flood Plain) Zone which prohibits construction of residences unless a flood variance is approved by the County. The portion of the site zoned for residential development does not contain sufficient area to allow construction of a residence.

   The existing F-1 Zone designation was applied to the site to coincide with the flood plain boundaries established by the Army Corps of Engineers in 1967. Recent flood control studies by FEMA establish 100 year flood boundary lines not consistent with those established by the Army Corps of Engineers greater than a quarter century ago. The existence of conflicting flood boundary lines and the jurisdiction of multiple agencies present significant challenges for the property owner with regard to coordinating the efforts of all agencies to adopt the most recent scientific and engineering studies that appropriately identify the portions of the site which may be categorized as area of special flood hazard. Therefore, approval of a flood variance is the only feasible method allowing construction of a residence at the site until such time that respective flood designations of the site to reflect the most recent and up to date flood study data.

3. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization to the public or conflict with existing County ordinances.

ENVIRONMENTAL SUMMARY: Find the project to be exempt from the requirements of the California Environmental Quality Act pursuant to Section 15303, Class 3 pertaining to installation of small, new equipment and facilities in small structures and conversion of the use of small existing structures; Section 15304, Class 4 pertaining to minor alterations in the condition of the land, such as grading, gardening, and landscaping, that do not affect sensitive resources; Section 15305, Class 5 pertaining to minor alterations to land use limitations such as

SUBJECT: Flood Variance No. 10-001 (ZA)
DATE:

variances, and encroachment permits, that do not result in changes in land use or density; and under the General Rule Exemption, Section 15061 (b) (3).

ATTACHMENTS:

Attachment 1 – Draft Zoning Administrator Decision with Preliminary Conditions of Approval
Exhibit "A" – Site Plan
Attachment 2 – Draft Notice of Exemption
Attachment 3 – Staff Report
Attachment 4 – Dept. of Fish and Game River Well Agreement
Attachment 5 – Engineered Sewage Disposal Report
Exhibit "A" – Environment Health Approval Letter for Engineered Septic Design
Attachment 6 – Botanical Field Survey
Attachment 7 – Maps and Graphics
Attachment 8 – Consulting Agency List and Correspondence
Attachment 9 – Location and Property Ownership Map for Hearing Notification

PROJECT PLANNER:

Nick Hahn

PLANNER III:

Charlotte Brusuelas

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD.
VISALIA, CA. 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Britt L. Fussel — Public Works
Jake Raper, Jr. — Planning
Roger Hunt — Development Services & Administrative Services

JAKE RAPER JR., DIRECTOR

April 7, 2011

Martin & Ellen Burnham
650 El Repetto
Monterey Park, CA 91754

Dear Applicant(s):

Your Flood Variance, PFV 10-001 (ZA) was approved by the Zoning Administrator on April 7, 2011. Enclosed is a copy of Zoning Administrator Decision No. 3068 which conditionally approved your application. Please read all of the instructions below to complete the process. The following additional documents are also enclosed:

An Acceptance Form (white) which must be signed by the project applicant, and properly notarized for the County Recorder's Office. **NOTE: THE SIGNATURE ON THE ACCEPTANCE FORM MUST BE THE SAME AS THE NAME WHICH APPEARS IN THE OPENING PARAGRAPH ON THE FIRST PAGE OF THE RESOLUTION.**

Since you have prepaid the County Recorders fees, please return the above completed to my attention at the Resource Management Agency at the above address for processing and recording. Once recorded, a copy of the recorded decision will be returned to you.

The Decision is final 10 days after the date that the Decision document is signed by the Zoning Administrator unless it is appealed to the Board of Supervisors by you or another affected party (if the 10th day falls on a weekend or holiday, the appeal MUST be received the first working day following said weekend or holiday). Please be sure you have read and understand all of the conditions of approval, as periodic inspections to confirm compliance will be performed.

If you have any questions concerning your application or any of the enclosed documents, please contact this office.

Sincerely,

Nick Hahn, Project Planner
Planning Branch
Project Review Division

NH:vq

Don Stivers Land Surveying

ACCEPTANCE

I/We, Ellen Burnham, do hereby accept the Flood Variance granted by the foregoing decision of the Zoning Administrator and agree that said I/we, my/our heirs, executors, administrators and assigns will well and faithfully observe all of the conditions and qualifications to said Flood Variance as set forth in the foregoing decision of the Zoning Administrator attached thereto, and I/we acknowledge and agree that should I/we, my/our heirs, executors, administrators or assigns, fail to observe any of the said conditions or qualifications to said Flood Variance, the Zoning Administrator or any body or officer designated by law or ordinance may, on its own motion, revoke or modify said Flood Variance pursuant to the procedure established by law or ordinance and said Flood Variance shall thereupon be null and void and of no further effect.

Ellen Burnham

(Signatures)

State of California)

County of Tulare)

On 4-7-11 (date) before me, Sammi Franks (name and title of officer), Notary Public, personally appeared Ellen Burnham (name of person signing) who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument, the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Sammi Franks
Signature of Notary Public

SAMMI FRANKS
Commission # 1891782
Notary Public - California
Tulare County
My Comm. Expires Jun 4, 2014

BEFORE THE ZONING ADMINISTRATOR

COUNTY OF TULARE, STATE OF CALIFORNIA

IN THE MATTER OF FLOOD VARIANCE)

DECISION NO. 3068

APPLICATION NO. PFV 10-001 (ZA))

Decision of the Zoning Administrator of the County of Tulare approving a flood variance requested by Ellen Burnham, 650 El Repetto, Monterey Park, CA 91754 (Agent: Don Stivers Land Surveying, 40507 Sierra Drive, Three Rivers, CA 93271) from the Flood Damage Prevention Ordinance 2726, Section 7-27-1000, et seq., to allow the construction a single family residence in the F-1 (Primary Flood Plain) Zone on property located approximately 500 feet east of the intersection of North Fork Drive and Kaweah River Drive, in Three Rivers.

The Zoning Administrator hereby determines the following findings were relevant in evaluating this application:

1. An application for a Flood Variance has been filed pursuant to the regulations contained in Section 7-27-1000 of Ordinance 2726, the Flood Damage Prevention Ordinance.

2. Under Section 7-27-1265 of the Flood Damage Prevention Ordinance, the Zoning Administrator is authorized to approve or deny variance requests for from the provisions of Chapter 27 of Part 7 such as may be in harmony with its general purpose and intent.

3. Staff has given notice of the Zoning Administrator's intention to consider the granting of a Flood Variance as provided in Section7-27-1275 if the County Ordinance Code, and as provided in Section 65905 of the Government Code of the State of California.

4. Staff has performed necessary investigations, prepared a written report and recommended certain conditions of approval, if this application is approved by the Zoning Administrator.

5. A public hearing was conducted on April 7, 2011, in the Commission Meeting Room of the Resource Management Agency Offices in order to receive public testimony on the proposal. Don Stivers (agent) appeared and provided testimony in support of the proposal. No opposition to the proposal was received.

The Zoning Administrator, after considering all of the evidence presented hereby finds that:

1. A showing of good and sufficient cause has been made.

2. Failure to grant the variance would result in exceptional hardship to the applicant.

   The subject property is affected by special circumstances such as size, shape, topography, and proximity to the Kaweah River which deprive the property owner of privileges enjoyed by other properties in the vicinity and under identical zoning classification. The majority of the site is comprised of F-1 (Primary Flood Plain) Zone which prohibits construction of residences unless a flood variance is approved by the County. The portion of the site zoned for residential development does not contain sufficient area to allow construction of a residence.

   The existing F-1 Zone designation was applied to the site to coincide with the flood plain boundaries established by the Army Corps of Engineers in 1967. Recent flood control studies by FEMA establish 100 year flood boundary lines not consistent with those established by the Army Corps of Engineers greater than a quarter century ago. The existence of conflicting flood boundary lines and the jurisdiction of multiple agencies present significant challenges for the property owner with regard to coordinating the efforts of all agencies to adopt the most recent scientific and engineering studies that appropriately identify the portions of the site which may be categorized as area of special flood hazard. Therefore, approval of a flood variance is the only feasible method allowing construction of a residence at the site until such time that respective flood designations of the site to reflect the most recent and up to date flood study data.

3. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization to the public or conflict with existing County ordinances.

The Zoning Administrator further finds there is no substantial evidence that the proposed flood variance will have a significant effect on the environment and determines that the project is Categorically Exempt from the requirements of the California Environmental Quality Act pursuant to Section 15303, Class 3 pertaining to installation of small, new equipment and facilities in small structures and conversion of the use of small existing structures; Section 15304, Class 4 pertaining to minor alterations in the condition of the land, such as grading, gardening, and landscaping, that do not affect sensitive resources; Section 15305, Class 5 pertaining to minor alterations to land use limitations such as variances, and encroachment permits, that do not result in changes in land use or density; and under the General Rule Exemption, Section 15061 (b) (3).

NOW, THEREFORE, BE IT DETERMINED AS FOLLOWS:

The Zoning Administrator of the County of Tulare hereby approves Flood Variance Application No. PFV 10-001 (ZA), subject to the following conditions:

General Condition(s):

1. Development shall be in accordance with the plan(s) as submitted by the applicant and/or as modified by the Zoning Administrator *(see Exhibit "A")*.

2. Regardless of Condition No. 1 above, and in accordance with Section 18 (Minor Modifications-Director's Approval) of the Zoning Ordinance, the Planning Director is authorized to approve minor modifications in the approved plans upon a request by the applicant, or his successors as long as said modifications do not materially affect the determination of the Zoning Administrator. Such modifications shall be noted on the approved plans and shall be initialed by the Planning Director.

3. Any structures built shall conform to the building regulations and the building line setbacks of the Ordinance Code of Tulare County insofar as said regulations and setbacks are applicable to such structures.

4. Any structures built shall conform to Flood Damage Prevention Ordinance requirements and any other requirements as may be determined necessary by the Resource Management Engineering Division. Building requirements for any structures will be determined by the Resource Management Engineering Division prior to the issuance of any building permits.

5. This Flood Variance shall automatically become null and void two (2) years after the date upon which it is granted by the Zoning Administrator, unless the applicant, or his/her successor, has actually commenced the use or variance authorized by the permit within said two year period. This Flood Variance shall automatically expire and become null and void two (2) years after the use for which it was granted is discontinued or abandoned. The Zoning Administrator may grant one or more extensions of said two year time, upon request by the applicant.

6. This Flood Variance will not be effective until ten (10) days after the date upon which it is granted by the Zoning Administrator.

Indemnification:

7. The applicant(s), at their sole cost and expense, shall defend, indemnify and hold harmless the County of Tulare, its agents, legislative body, officers or employees in any legal or administrative action, claim or proceeding concerning approval of Flood Variance No. PFV 10-001 (ZA): or, at its election and in the alternative, shall relinquish such approval. The applicant(s) shall assume the defense of the County in any such legal or administrative action, claim or proceeding with legal counsel paid for in the entirety by the applicant(s), but subject to the County's reasonable approvals. The applicant shall also reimburse the County, its agents, its legislative body, officers or employees for any judgments, amounts paid in the settlements court costs and attorney's fees with the County, its agents, legislative body, officers or employees may be required to pay at court as a result of such action, claim or proceeding. The County may, at its sole discretion, participate at its own expense in the defense of any such action, claim or proceeding, but such participation shall not relieve the applicant(s) of their obligations under this condition.

Environmental Health Services:

9. New sewage disposal systems shall be designed by a Registered Civil Engineer, Registered Environmental Specialist or Registered Engineering Geologist. The specifications and engineering data for said system shall be submitted to the Tulare County Environmental Health Services Division (TCEHSD) for review and approval prior to issuance of a building permit.

10. No sewage disposal system shall be installed within two hundred feet (200') from any reservoir, one hundred feet from any river/year round creek, and fifty feet from any drainage course.

Fire:

11. All new construction, roadways and / or driveways shall comply with the Tulare County Fire Safe Regulations pertaining to driveways, gate entrances, defensible space, addresses identifying buildings, and Fire Safe Standards. All building permit applications shall be reviewed and approved by the Tulare County Fire Department prior to their issuance. All required improvements shall be completed prior to occupancy of the structure and prior to the issuance of occupancy permits.

12. The property owner shall select one of the following as a means of providing fire protection:

a. Install a fire hydrant (system) in compliance with Tulare County Improvement Standards. Copies of improvement plans shall be submitted to the Fire Department and RMA Engineering (3 copies each) for review prior to construction.

b. Install an automatic sprinkler system within each dwelling unit as per standards set forth in NFPA Pamphlet #13D. Two copies of said sprinkler plans shall be submitted to the Tulare County Fire Department for review and approval prior to issuance of building permits.

c. Install a 4,000 gallon fire suppression water storage tank for each building. The locations shall be designated by the Fire Department. The tank shall be equipped with a valved 4-1/2 (National Hose Thread) connection (Also see Tank Standard). Plans for said system shall be reviewed and approved by the Fire Department prior to the start of any construction.

13. An encroachment permit shall be required from the State Reclamation Board for the construction of any type of structure within the Kaweah River designated floodway.

14. If, during any grading or excavation activities of the site, any resources of a historic or archaeological nature are discovered, development shall not continue until the RMA Director certifies that appropriate recovery measures, if deemed necessary, have been completed.

15. Removal or grading around native trees with a trunk of 12 inches or more in diameter measured at three feet above ground surface should not be permitted unless RMA finds that such tree removal or grading is necessary due to desirable circulation alignments or infrastructure requirements.

16. Any native tree as defined above which is proposed for removal must be indicated on or with the Site Plan and a statement shall accompany such site plan explaining why said tree or trees must be removed.

17. Any mature tree within the project area likely provides nesting habitat for songbirds and raptors. If tree removal is unavoidable, it should occur during the non-breeding season (mid-September through January). If construction activities or tree removal must occur during breeding season (February through mid-September) surveys for active nests should be conducted by a qualified biologist no more than 30 days prior to the start of construction. A "no disturbance buffer" of a minimum of 250 feet should be delineated around active nests until the breeding season has ended or until a qualified biologist has determined that the

birds have fledged and are no longer reliant upon the nest or parental care for survival.

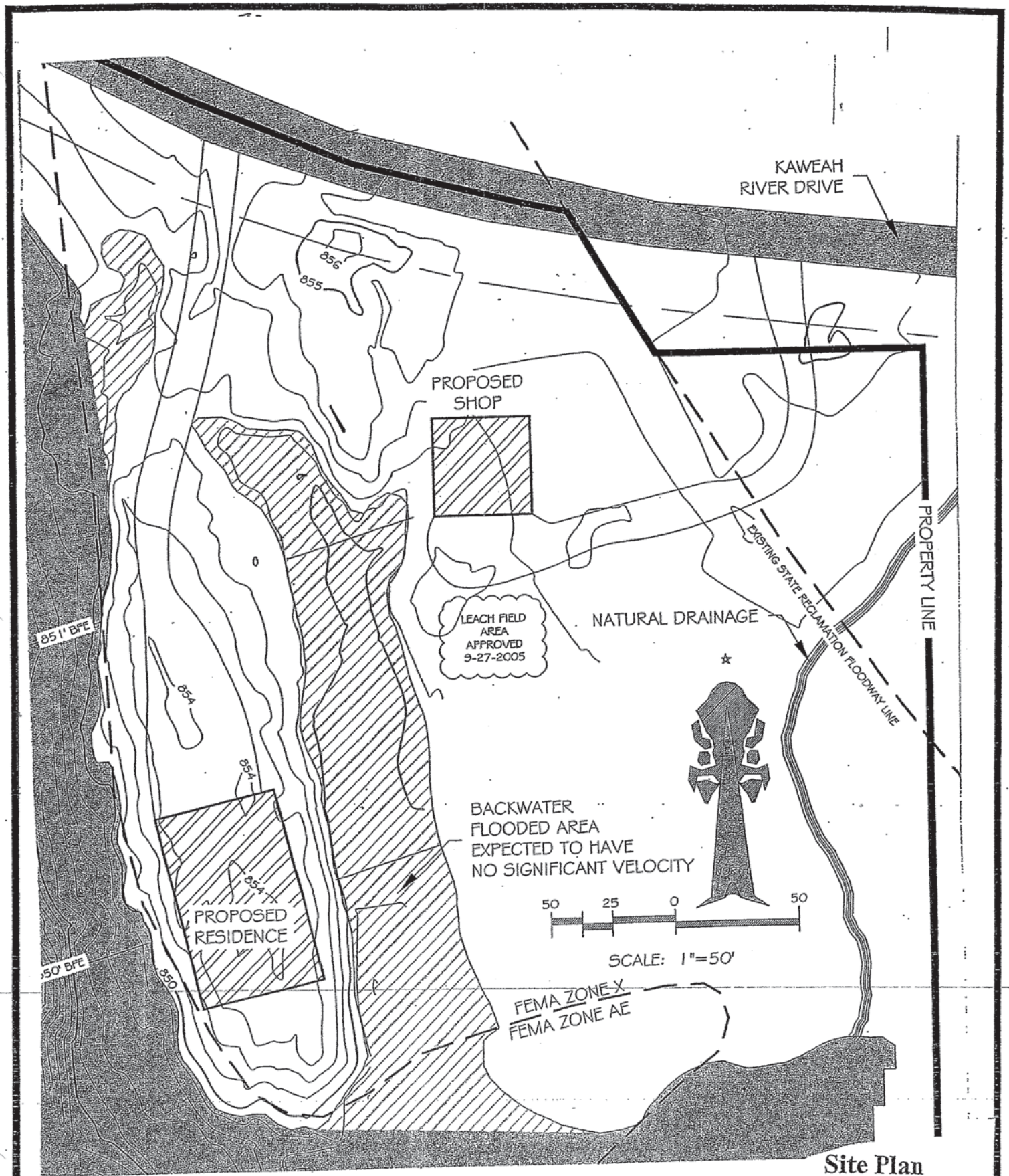
18. If Kaweah Brodiaea is discovered to exist at the site, the applicant shall fence all areas surrounding the plants. No improvements or development shall occur within these locations or within 100 feet.

19. The applicant shall make all necessary arrangements for the relocation of all overhead and underground public utility facilities that interfere with any improvement work to be performed by the applicant. The applicant shall also make necessary arrangements with the public utility company affected for the cost of relocating such facilities and no portion of relocation cost will be paid by the County.

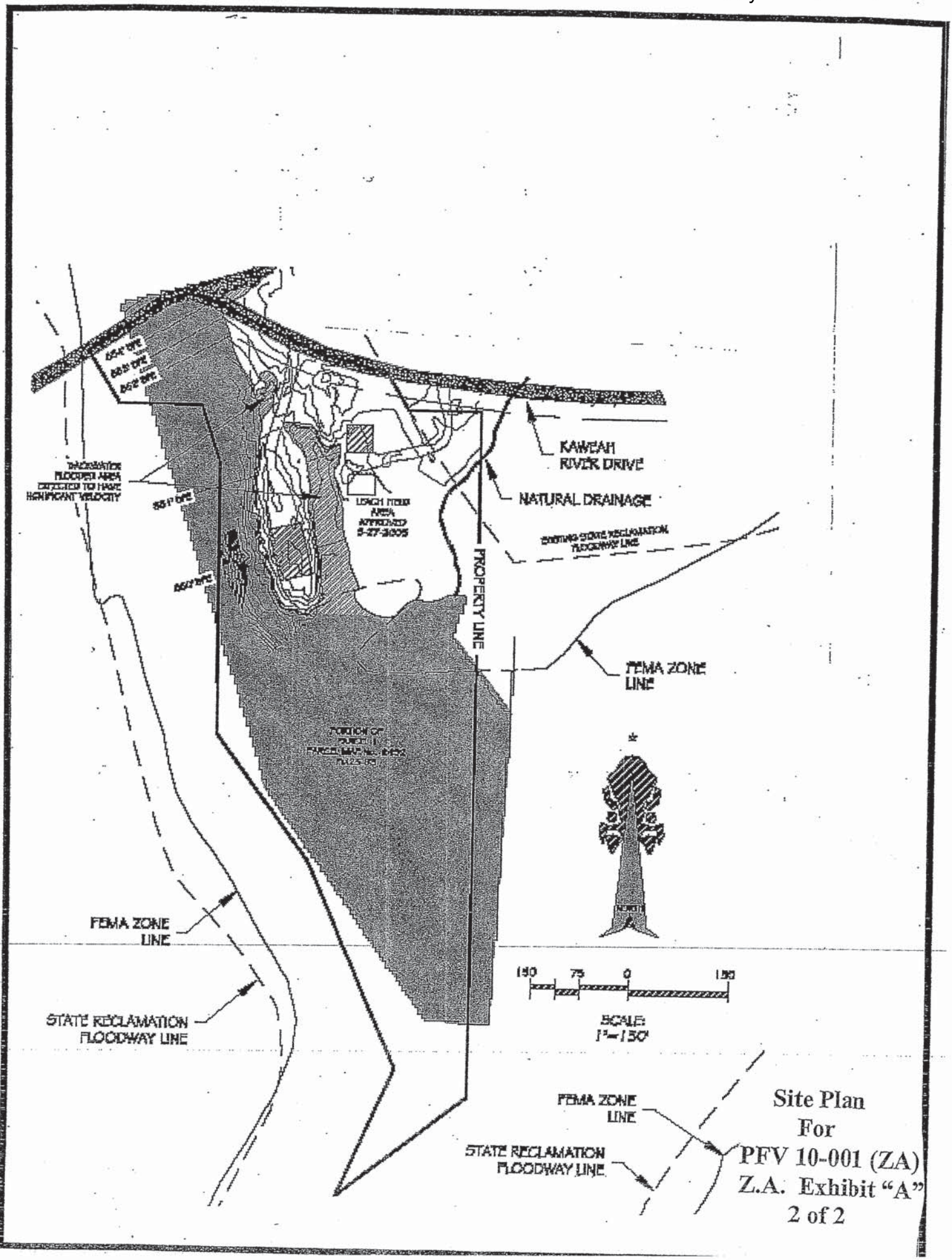
TULARE COUNTY ZONING ADMINISTRATOR

Benjamin A. Kimball, Zoning Administrator

Date Approved: 4/7/11



Site Plan
For
PFV 10-001 (ZA)
Z.A. Exhibit "A"
1 of 2



Site Plan
For
PFV 10-001 (ZA)
Z.A. Exhibit "A"
2 of 2

Notice of Exemption

ATTACHMENT NO. 2

Attachment C - Tulare County Variance

To: ☐ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

X County Clerk
County of Tulare
Courthouse, Room 105
221 South Mooney Boulevard
Visalia, California 93291

From: County of Tulare, RMA
Government Plaza
5961 South Mooney Blvd.
Visalia, Ca 93277

Project Title: Flood Variance No. PFV 10-001 (ZA)

Project Location - Specific: APN: 067-160-039; The subject site is located approximately 500 feet east of the intersection of North Fork Drive and Kaweah River Drive, in Three Rivers.

Project Location- Section, Township, Range: Sec. 13, T.17S., R.28E. MDB&M

Description of Nature, Purpose, and Beneficiaries of Project: Variance from Ordinance No. 2726, Section 7-27-1000, et seq., to allow the construction a single family residence and associated improvements in the F-1 (Primary Flood Plain) Zone. Martin & Ellen Burnham requested the variance to allow the construction a single family residence in the F-1 (Primary Flood Plain) Zone on property located approximately 500 feet east of the intersection of North Fork Drive and Kaweah River Drive, in Three Rivers.

Name of Public Agency Approving Project: County of Tulare, Resource Management Agency
Name of Person or Agency Carrying Out Project: Martin & Ellen Burnham, 650 El Repetto, Monterey Park, CA 91754

Exempt Status: (*check one*)

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- X General Rule: CEQA guidelines 15061 (b)(3)
- X Categorical Exemption:
- ☐ Statutory Exemptions:

Reasons why project is exempt: The proposed project is Categorically Exempt from the requirements of the California Environmental Quality Act pursuant to Section 15303, Class 3 pertaining to installation of small, new equipment and facilities in small structures and conversion of the use of small existing structures; Section 15304, Class 4 pertaining to minor alterations in the condition of the land, such as grading, gardening, and landscaping, that do not affect sensitive resources; Section 15305, Class 5 pertaining to minor alterations to land use limitations such as variances, and encroachment permits, that do not result in changes in land use or density; and under the General Rule Exemption, Section 15061 (b) (3). Construction of the residence and associated improvements will be subject to all applicable California Building Codes, Fire Safe Regulations, Flood Prevention Requirements, and conditions of approval to ensure that no adverse impacts to the subject property or surrounding areas will occur. Therefore, it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment.

Lead Agency: County of Tulare Resource Management Agency

Zoning Administrator: Benjamin A. Kimball Area Code/Telephone: 559-624-7000

Signature: _____ Date: 3/9/2011 Title: Zoning Administrator

☐ Signed by Lead Agency
☐ Signed by Applicant

Date received for filing at OPR: _____
Date Sent to the County Clerk: _____

TULARE COUNTY RESOURCE MANAGEMENT AGENCY
- PLANNING BRANCH -

STAFF REPORT

APPLICATION NO.: PFV 10-001 (ZA)

APPLICANT: Martin T. & Ellen Kaye Burnham
650 El Repetto
Monterey Park, CA 91754

OWNER: Same

AGENT(s): Don Stivers Land Surveying
40507 Sierra Drive
Three Rivers, CA 93271

AMEC Geomatrix, Inc.
1281 East Alluvial Avenue, Suite 101
Fresno, California 93720

PROPOSAL: Variance from Ordinance No. 2726, Section 7-27-1000, et seq., to allow the construction a single family residence and associated improvements in the F-1 (Primary Flood Plain) Zone.

LOCATION: The subject site is located approximately 500 feet east of the intersection of North Fork Drive and Kaweah River Drive, in Three Rivers.

APN: 067-160-039; Section 13, Township 17 S, Range 28 E, M.D.B.& M.

BACKGROUND:

The property owner has requested a flood variance to allow construction of single family residence and associated improvements within the F-1 (Primary Flood Plain) Zone. A majority of the 6.91 acre site is located within the Kaweah River Designated Floodway, and is located within the vicinity of the confluence of the Main Fork and North Fork of the Kaweah River.

The Flood Damage Prevention Ordinance of Tulare County identifies floodways within the County by reference to the Flood Boundary Floodway Map (official FEMA map delineating areas of flood hazard and floodways), and maps adopted by the State Reclamation Board, and the County Zoning Map (signified by the F-1 Primary Flood Plain Zone). During the late1960's the County began applying the F-1 Zone to properties located within special flood hazard areas as designated by the Army Corps of Engineers and the State Board of Reclamation. The F-1 zone designation is intended to restrict development within designated flood areas and provide notice to property owners that potential flood hazards may exist.

Historically, the County of Tulare has applied a firm stance prohibiting any type of structural development within the F-1 Zone. Within the past twelve years, a total of six applications were submitted for consideration of a flood variance. Of those six variance requests, only one variance was approved to allow an agricultural storage structure to remain after it had been discovered that a small corner of the structure had inadvertently been constructed within the F-1 zone.

It should be noted that the present flood variance request is very unique in nature and requires consideration of unusual circumstances. The majority of the site is located within F-1 (Primary Flood Plain) with the exception of the northeast corner which is zoned R-A-43 (Rural Residential – 43,000 sq. ft. minimum). The R-A-43 Zone is considered suitable for residential development; however, insufficient developable area exists to accommodate construction of a residence in accordance with the applicable yard area requirements. Additionally, topographical survey of the site indicate that the proposed building location within the F-1 Zone is greater in elevation than that portion of the site identified for development under zoning.

The designated 100-year floodway affecting the site as delineated by County and the Central Valley Flood Protection Board are not consistent with the 100-year boundaries as recently updated by the Flood Emergency Management Agency (FEMA). Engineering flood studies of the subject site were submitted by the property owner demonstrating that the 2009 updated 100-year flood control boundaries as established by FEMA are more accurate than the boundaries adopted by the County greater than a quarter century ago. The studies further revealed the proposed development area is the portion of the site that is least likely to be inundated in the event that a flood occurs. Analysis of the site further revealed that no portion of the site is suitable for construction of a residence unless a variance is approved to allow construction within the disputed flood hazard area, or a variance is approved to waive the required yard areas of the R-A-43 Zone.

As discussed above, this site contains conditions that warrant special consideration with regard to approval of a variance. The existence of conflicting flood boundary lines in conjunction with multi-agency jurisdiction applicable to this property adversely affect the entitlements afforded to surrounding properties. Approval of a flood variance by the County is the only legally feasible method of permitting construction of a residence at the site until such time that respective flood designations of the site are updated to reflect the most recent and up to date flood study data. Based on the above analysis, the requested flood variance should be approved as sufficient evidence has been presented that demonstrates the proposal reflects safest location to construct a residence.

ZONING AND LAND USE:

Site: F-1 (Primary Flood Plain Zone) & R-A-43 (Rural Residential – 43,000 square feet); the proposed development area is located on a small ridge that parallels the North Fork of the Kaweah River, located approximately 800 feet north of the confluence of the North Fork

and Main Fork of the Kaweah River. The majority of the subject parcel is located within the Kaweah River Designated Floodway and is zoned F-1.

Surrounding Properties:

North – F-1, AE-20 (Exclusive Agricultural – 20 acre minimum) & R-O-44 (Single Family Estate – 44,000 sq. ft. minimum); Kaweah Drive, rural residential, and the old Three Rivers airport

East – F-1 & R-A-43; Middle Fork Kaweah River and rural residential

South – F-1 & R-A-43; Middle Fork Kaweah River and rural residential

West – R-A-43; North Fork Kaweah River and rural residential

GENERAL PLAN ELEMENTS:

Land Use Element: The subject site is within the Three Rivers Community Plan, which designates the site as "Kaweah River Designated Floodway."

Urban Boundaries Element: The subject site is within the Urban Development Boundary of Three Rivers.

1972 Environmental Resources Management Element (ERME), Open Space Plan: The ERME states, "Issue 9.e: Urban growth should not occur in flood plains, near shorelines, or scenic and historic sites, valuable resource lands, aquifer recharge areas and other protection areas designated on the Open Space Plan, unless such use can be designated to be compatible and unintrusive.

The proposed residential home will be constructed in a clear portion of the property with minimal impacts to riparian areas. A Biological survey was conducted by consulting biologist, Hal D. Boley, MA to analyze the potential impacts to special status species and riparian habitat. The Biologist's results showed "the northern portion of the property is herbaceous cover with sparse tree cover. The existing available home site has no tree population."

There are adequate areas on the property to allow for the construction of septic systems that will not impact the Oaks, Sycamores or riparian area. Conditions of approval have been included to reduce any adverse impacts to the biological resources associated with the Main and North fork riparian corridors bounding this parcel.

HISTORY:

The site was rezoned from O (Recreation) to F-1 upon adoption of the Kaweah River Designated Floodway by the Board of Supervisors (Ordinance No. 2433) on September 10, 1968. Tentative Parcel Map No. PPM 79-300 was approved by the Site Plan Review Committee on October 5, 1979. The parcel map created three parcels including the subject site as a portion of Parcel 1 of said map.

Parcel 1 of PPM 79-300 was reconfigured by Lot Line Adjustment PLA 84-033. The lot-line adjustment divided the eastern and western portions along the North Fork Kaweah River, while eliminating the line that runs north and south of the eastern 340 feet of Parcel 1. The lot-line adjustment was approved by the Planning Director on August 28, 1984. Court decree later invalidated PLA 84-033, and as a result of the court's decision, the intervening sliver of land (owned by separate party) now divides the two pieces of property.

OTHER:

Water Service: Water service will be provided by an existing river well. The river well was approved by the California Department Fish & Game Stream Alteration Agreement No. 2007-0215-R4.

Sewage Disposal Service: On-site soils require engineered design for the future sewage disposal system. An engineered sewage disposal system has been designed for this site and approved by the Tulare County Environmental Health Services Division (TCEHSD). At such time that a building permit is submitted, the engineered septic will be required to be constructed in accordance with the approved design. Any modification to the approved septic design will be required to be reviewed and approved by the TCEHSD prior to issuance of permits.

Fire Protection: Tulare County Fire Department, station located in Three Rivers.

Police: Tulare County Sheriffs Department, resident deputy located in Three Rivers.

Public Utilities: Electric – Southern California Edison

FLOOD DAMAGE PREVENTION REQUIREMENTS:

FIRM Zone(s): The subject property is located within Zones AE, X (0.2 percent) and X of Panel No. 709 of the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP) Flood Insurance Rate Map (FIRM) for Community Number 065066 dated June 16, 2009.

The proposed building site is located within FEMA Zone X (0.2 percent). Construction of buildings within a shaded Zone X (0.2 percent chance flood) requires no specific flood mitigation measures, however, it is recommended that all finished floor levels be elevated one (1) foot above adjacent natural ground.

FBFM Designation: A portion of the subject site is located within the boundaries the Kaweah River designated floodway of the State Reclamation Board. An encroachment permit shall be required from The State Reclamation Board for the construction of any type of structure within the designated floodway.

The consultation response received from the Tulare County Engineering Department, dated November 9, 2010, indicates the proposal satisfies the requirements for a variance pursuant to 44 CFR 60.6 (a) (7). The response provided the following analysis:

> *Although a portion of the property lies within the FEMA designated floodway, the proposed building site is located outside of the designated FEMA floodway.*
>
> *Requirements for variances and exceptions for granting variances are set forth in 44 CFR § 60.6. The issuance of a variance is for flood plain management purposes only. Insurance premium rates are determined by statute according to actual risk and will not be modified by the granting of a variance. In § 60.6, variances shall not be issued by a community within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.*
>
> *This variance request is to allow a structure to be constructed within the State Reclamation Board Floodway. Due to the topographic features of the land on the subject parcel, an engineering analysis revealed that the proposed building site is higher than the base flood, and as a result, would not be inundated by the 100-year flood. The analysis also identified the actual State floodway line should be positioned in approximately the same location as the FEMA floodway line.*
>
> *Based on the above it has been determined that the requirements for a variance pursuant to 44 CFR 60.6 (a) (7) have been satisfied and a variance may be issued for the planned construction.*

REQUIRED CONSIDERATIONS: Section 7-27-1280 of the Flood Damage Prevention Ordinance states:

(a) In passing upon such applications, the Zoning Administrator shall consider all technical evaluations and all relevant factors and standards specified in this Chapter, and:

1. The danger that materials may be swept onto other lands to the injury of others.

2. The danger to life and property due to flooding or erosion damage.

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

4. The importance of the services provided by the proposed facility to the County.

5. The necessity to the facility of a waterfront location, where applicable.

6. The availability of alternative locations for the proposed uses that are not subject to flooding or erosion damage.

7. The compatibility of the proposed use with existing and anticipated development.

8. The relationship of the proposed use to the County General Plan and the floodplain management program for that area.

9. The safety of access to the property in times of flood for ordinary and emergency vehicles.

10. The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.

11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(b) Any applicant to whom a variance is granted shall be given a written notice over the signature of the Zoning Administrator that:

1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $24 for $100 of insurance coverage; and

2. Such construction below the base flood level increases risks to life and property.

SPECIFIED FINDINGS:

The following findings are recommended by staff:

1. The variance as requested, will not result any increase in flood levels during the base flood discharge.

2. The variance as requested, is the minimum necessary, considering the flood hazard, to afford relief.

3. The variance as requested, should be granted because:

   a. A showing of good and sufficient cause has been made.

   b. Failure to grant the variance would result in exceptional hardship to the applicant.

      The subject property is affected by special circumstances such as size, shape, topography, and proximity to the Kaweah River which deprive the property owner of privileges enjoyed by other properties in the vicinity and under identical zoning classification. The majority of the site is comprised of F-1 (Primary Flood Plain) Zone which prohibits construction of residences unless a flood variance is approved by the County. The portion of the site zoned for residential development does not contain sufficient area to allow construction of a residence.

      The existing F-1 Zone designation was applied to the site to coincide with the flood plain boundaries established by the Army Corps of Engineers in 1967. Recent flood control studies by FEMA establish 100 year flood boundary lines not consistent with those established by the Army Corps of Engineers greater than a quarter century ago. The existence of conflicting flood boundary lines and the jurisdiction of multiple agencies present significant challenges for the property owner with regard to coordinating the efforts of all agencies to adopt the most recent scientific and engineering studies that appropriately identify the portions of the site which may be categorized as area of special flood hazard. Therefore, approval of a flood variance is the only feasible method allowing construction of a residence at the site until such time that respective flood designations of the site to reflect the most recent and up to date flood study data.

   c. The granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization to the public or conflict with existing County ordinances.

SUBSEQUENT ACTION:

Appeals:

Any announced decision of the Zoning Administrator for approval or denial of an application is tentative until the date a written decision is signed by the Zoning Administrator. The written decision becomes final ten (10) calendar days after the date the

decision is signed unless appealed in writing to the Board of Supervisors. The appeal letter should be sent to the Tulare County Board of Supervisors, 2800 West Burrel Avenue, Visalia, CA 93291-4582. The written appeal shall specifically set forth the grounds for the appeal and shall be accompanied by the appropriate appeals fee.

ENVIRONMENTAL IMPACTS CHECKLIST/DISCUSSION FORM: *(Not applicable)*

ENVIRONMENTAL DETERMINATION:

The proposed project is Categorically Exempt from the requirements of the California Environmental Quality Act pursuant to Section 15303, Class 3 pertaining to installation of small, new equipment and facilities in small structures and conversion of the use of small existing structures; Section 15304, Class 4 pertaining to minor alterations in the condition of the land, such as grading, gardening, and landscaping, that do not affect sensitive resources; Section 15305, Class 5 pertaining to minor alterations to land use limitations such as variances, and encroachment permits, that do not result in changes in land use or density; and under the General Rule Exemption, Section 15061 (b) (3).

CREDITS:

This Staff Report prepared by:

Nick Hahn, Project Planner
Planning Branch, Project Review Division

3/7/11
Date

Approved by:

Charlotte Brusuelas, Planner III
Planning Branch, Project Review Division

3-7-11
Date

Tulare County
Health & Human Services Agency
C. Brian Haddix, CAO
Kristin Bennett, Interim HHSA Director

Community Services Branch ▪ Ray Bullick, Assistant Director

September 27, 2005

Dennis Meyers
Central Valley Testing
P.O. BOX 2669
Visalia, Ca 93279-2669

Re: APN 067-160-039 (Chavez)

Dear Mr. Meyers:

This office is in receipt of the sanitary waste disposal study and design on the above referenced parcel. Based upon the information provided, this office is approving said design with the following conditions.

1. Upon application for the sewage system building permit, the applicant shall provide a copy of this approval letter.

2. Any changes in this engineered design will require prior approval by the designing engineer and the Health and Human Services Agency, Environmental Health Services Division.

3. The Resource Management Agency, Building Division, shall be notified to inspect for proper construction and installation of the sewage disposal system.

4. The leach field shall be installed in the area designated on the submitted design.

5. Trench bottoms shall be dug level.

6. Installer shall rake sides and bottom of trenches to a depth of one inch (1") prior to the addition of rock.

7. Drain rock size is limited to 3/4" - 2 1/2"..

8. No asphalt or concrete will be allowed to be installed over the primary leach field or the 100% replacement area. The applicant shall use soil with grass cover to facilitate evapotranspiration.

Furthermore, the following integral components are included as part of your approved design:

1. Four (4) bedroom house
2. One (1) 1500 gallon septic tank.

Alternative I

3. Three (3) leach lines at 85 feet long each.
4. Three foot (3') wide trench bottoms.
5. Twelve inches (12") of rock installed below the drain lines (18 " of rock - total).
6. Total of 765 square feet of leaching area.
7. Leach lines shall be placed eight feet (8') on center from each other.
8. One (1) distribution box.

Alternative II

1. Two (2) leach lines at 77' feet long each, using High Capacity Infiltrator leach chambers.
2. Total of 770 square feet of leaching area.
3. One distribution box.
4. Leach lines shall be set nine feet (9') apart on center.
5. One (1) distribution box.

This approval is with reference to Environmental Health issues only. Please make sure to check with the Tulare County Resource Management Agency in regards to set-backs and other related requirements. If you have any questions, please call me at 733-6441, ext. 2811.

Sincerely,

Sabine T. Geaney

Sabine T. Geaney
Environmental Health Specialist
Environmental Health Services Division

CENTRAL VALLEY TESTING, Inc.

materials testing and inspection services
soils and environmental investigations

gwhitney brittoncon@att.net

August 30, 2005 **Report No. 05-2739**

Mr. Pete Chavez
c/o Kelbro Systems
44633 Dinely Drive
Three Rivers, California 93271

Project: Four Bedroom Home
APN 067-160-039
Kaweah River Drive
Three Rivers, California

Re: Feasibility study and recommendations for a sewage disposal system.

Dear Mr. Pete Chavez:

At your authorization, we have completed a feasibility study and recommendations for a sewage disposal system for a four-bedroom residence. Included in the accompanying report are results of percolation tests, soil evaluations, conclusions and recommendations.

If further information is needed, please do not hesitate to phone our office at (559) 732-3039.

Respectfully submitted
CENTRAL VALLEY TESTING, INC.

REGISTERED PROFESSIONAL ENGINEER
DALE H. WINN
NO. 23273
Exp. 12/31/2005
CIVIL
STATE OF CALIFORNIA

Dennis R. Myers
Director of Operations

Dale H. Winn
Principal Civil Engineer
RCE 23273

P.O. Box 2669, Visalia, CA 93279 • (559) 732-3039 • (559) 264-2224
Fax # (559) 732-8141

INTRODUCTION

This report is provided in support for the issuance of a building permit for construction and installation of a septic tank and leaching system for a proposed four-bedroom residence to be located at the referenced site in Three Rivers, California.

DESIGN CRITERIA

This feasibility study and design are performed in accordance with the Manual of Septic Tank Practice, U.S. Department of Health, Education and Welfare Publication, and recommendations of the State of California Water Quality Control Board, the Tulare County Department of Health Services, Division of Environmental Health and the Department of Building and Development.

SCOPE OF WORK

Initially, one test pit was excavated to a depth of 10 feet for a soil profile and 5 percolation tests were completed in the proposed leach line primary and replacement areas.

SOILS PROFILE / GROUNDWATER

The soils encountered consisted of fine silty sand with cobbles to the depth explored. Groundwater was not encountered in the pits, but natural springs are common in the general area. Should groundwater be encountered during installation procedures, the engineer must be notified for further recommendations.

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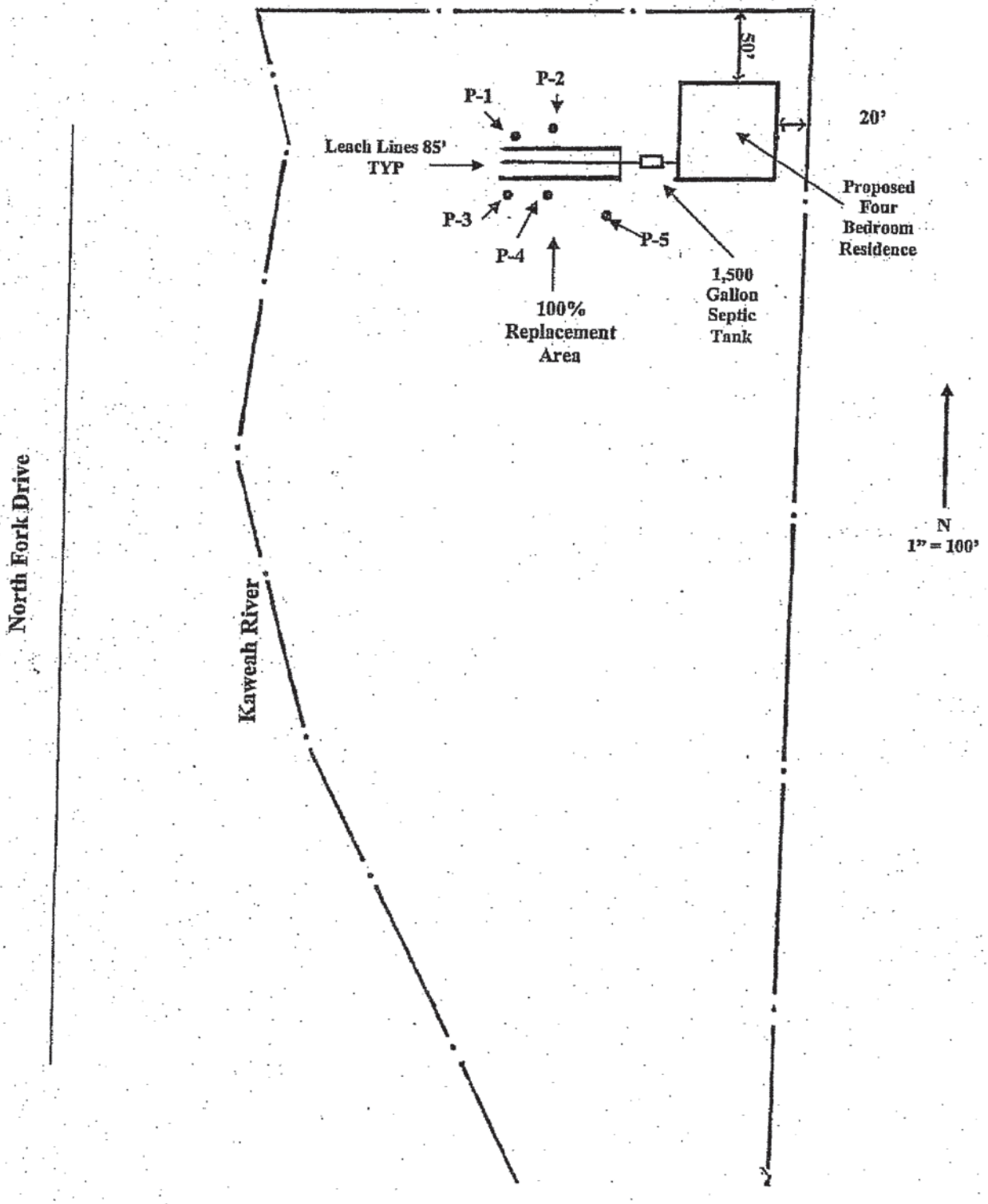
Fax # (559) 732-8141

Leach Line Layout



APN# 067-160-039, Kaweah River Drive
Pete Chavez

05-2739

Percolation Test - Field Form

Project: Percolation Test Location: Kaweah River Drive, Three Rivers

Client: Pete Chavez APN: 067-160-039

Field Data

Test Hole No. 1 of 5 Test Hole Depth: 19"

Bottom of Trench: 4' - 4" Test performed by RBK

Soil Description: Silty sand, mixed with cobble

Presoak date: 8/18/05 Soak Period 24 Hours Test date: 8/19/05

	Time T (Hr : Min)	D T (Min)	Water Level (In)	D H (In)	Perc Rate (min/In)
1	11:45		2 8 /16		
2	12:15	30	9 3 /16	6.69	4.49
3	12:45	30	14 1 /16	4.88	6.15
4	13:15	30	18 6 /16	4.31	6.96
5	13:45	30	2 0 /16 5 15 /16	3.94	7.62
6	14:15	30	11 8 /16	5.56	5.39
7	14:45	30	15 17 /16 1 17 /16	4.56	6.58
8	15:15	30	6 6 /16	4.31	6.96
9	15:25	10	8 4 /16	1.88	5.33
10	15:35	10	10 0 /16	1.75	5.71
11	15:45	10	11 7 /16	1.44	6.96
12					

Average Percolation Rate: 6.00 Min/In

Unusual Conditions:

Percolation Test - Field Form

Project: Percolation Test Location: Kaweah River Drive, Three Rivers

Client: Pete Chavez APN: 067-160-039

Field Data

Test Hole No. 2 of 5 Test Hole Depth: 18"

Bottom of Trench: 4' - 0" Test performed by RBK

Soil Description: Silty sand, mixed with cobble

Presoak date: 8/18/05 Soak Period 24 Hours Test date: 8/19/05

	Time T (Hr : Min)	D T (Min)	Water Level (In)	D H (In)	Perc Rate (min/in)
1	11:45		2 0 /16		
		30		4.88	6.15
2	12:15		6 14 /16		
		30		3.88	7.74
3	12:45		10 12 /16		
		30		2.50	12
4	13:15		13 4 /16		
		30	2 0 /16	3.25	9.23
5	13:45		5 4 /16		
		30		4.13	7.27
6	14:15		9 6 /16		
		30		2.88	10.43
7	14:45		12 4 /16		
		30	1 9 /16	3.56	8.42
8	15:15		5 2 /16		
		10		1.31	7.62
9	15:25		6 7 /16		
		10		0.86	11.43
10	15:35		7 5 /16		
		10		1.13	8.89
11	15:45		8 7 /16		
12					

Average Percolation Rate: 9.31 Min/In

Unusual Conditions:

Percolation Test - Field Form

Project: Percolation Test Location: Kaweah River Drive, Three Rivers

Client: Pete Chavez APN: 067-160-039

Field Data

Test Hole No. 3 of 5 Test Hole Depth: 20"

Bottom of Trench: 4' - 6" Test performed by RBK

Soil Description: Silty sand, mixed with cobble

Presoak date: 8/18/05 Soak Period 24 Hours Test date: 8/19/05

	Time T (Hr ; Min)	D T (Min)	Water Level (In)	D H (In)	Perc Rate (min/In)
1	11:45		1 0 /16		
		30		2.38	12.63
2	12:15		3 6 /16		
		30		0.63	48.00
3	12:45		4 0 /16		
		30		1.00	30.00
4	13:15		5 0 /16		
		30		1.13	26.67
5	13:45		6 2 /16		
		30		1.06	28.24
6	14:15		7 3 /16		
		30		0.88	34.29
7	14:45		8 1 /16		
		30		1.00	30.00
8	15:15		9 1 /16		
		10		0.44	22.86
9	15:25		9 8 /16		
		10		0.38	26.67
10	15:35		9 14 /16		
		10		0.50	20.00
11	15:45		10 6 /16		
12					

Average Percolation Rate: 23.18 Min/In

Unusual Conditions:

Percolation Test - Field Form

Project: Percolation Test Location: Kaweah River Drive, Three Rivers

Client: Pete Chavez APN: 067-160-039

Field Data

Test Hole No. 4 of 5 Test Hole Depth: 19"

Bottom of Trench: 4' - 6" Test performed by RBK

Soil Description: Silty sand, mixed with cobble

Presoak date: 8/18/05 Soak Period 24 Hours Test date: 8/19/05

	Time T (Hr : Min)	D T (Min)	Water Level (In)	D H (In)	Perc Rate (min/In)
1	11:45		4 13 /16		
		30		8.19	3.66
2	12:15		13 0 /16		
		30		4.75	6.32
3	12:45		17 12 /16		
		30	11 5 /16	5.13	5.85
4	13:15		16 7 /16		
		30	12 4 /16	5.31	5.65
5	13:45		17 9 /16		
		30	3 0 /16	7.44	4.03
6	14:15		10 7 /16		
		30		6.06	4.95
7	14:45		16 8 /16		
		30	2 9 /16	7.19	4.17
8	15:15		9 12 /16		
		10		2.69	3.72
9	15:25		12 7 /16		
		10		2.13	4.71
10	15:35		14 9 /16		
		10		1.56	6.4
11	15:45		16 2 /16		
12					

Average Percolation Rate: 4.94 Min/In

Unusual Conditions:

Percolation Test - Field Form

Project: Percolation Test Location: Kaweah River Drive, Three Rivers

Client: Pete Chavez APN: 067-160-039

Field Data

Test Hole No. 5 of 5 Test Hole Depth: 17 1/2"

Bottom of Trench: 4' - 0" Test performed by RBK

Soil Description: Silty sand, mixed with cobble

Presoak date: 8/18/05 Soak Period 24 Hours Test date: 8/19/05

	Time T (Hr : Min)	D T (Min)	Water Level (In)	D H (In)	Perc Rate (min/in)
1	11:45		3 6/16		
		30		6.13	4.90
2	12:15		9 8/16		
		30		3.75	8.00
3	12:45		13 4/16		
		30		3.19	9.41
4	13:15		16 7/16		
		30	2 0/16	6.06	4.95
5	13:45		7 17/16		
		30		4.44	6.76
6	14:15		12 8/16		
		30		3.06	9.80
7	14:45		15 9/16		
		30	1 14/16	4.13	7.27
8	15:15		6 0/16		
		10		1.44	6.96
9	15:25		7 7/16		
		10		1.19	8.42
10	15:35		8 10/16		
		10		1.13	8.89
11	15:45		9 12/16		
12					

Average Percolation Rate: 8.09 Min/In

Unusual Conditions:

PERCOLATION TEST RESULTS

Test Hole	Depth Inches	Perc/Rate (Min/Inch)	Date of Test
1	52	6	08/19/05
2	48	9	08/19/05
3	54	23	08/19/05
4	54	5	08/19/05
5	48	8	08/19/05

AVERAGE ..... 10 MIN/INCH

DISPOSAL FIELD DESIGN

See attached calculation for leach line design. The primary leach line area has been designed with the percolation rate of 10 min/inch. High capacity infiltrator panels will be used for the leach line construction. A 100% replacement area will be set aside for future use.

DESIGN CRITERIA

The following calculations are based on table 7 for luxury residences, figure 19, and the section entitled, "Estimates of Soil Absorption Areas" from the Manual of Septic Tank Practice; also the Uniform Plumbing Code, in addition to the requirements set forth by Tulare County Department of Health Services, Division of Environmental Health Services.

Four bedrooms will be used for design purposes.

Absorption Area - Manuel of Septic Practice (Figure 3)	
Number of bedrooms	4
5 People @ 150 Gallons Each /Day: (5 x 150)	750
Wash Machine: 40% of 750	300
Garbage Disposal: 20% of 750	150
Total Gallons per Day	1,200
Percolation Rate Min/Inch:	10
Absorption Rate: Gallons/Square Foot Per Day	1.56
Square Feet of Leach Line Required: 1,200/1.56	769
Trench Width (Feet)	3
Linear Feet of Leach Line Required: 769/3	256
Using High Capacity Infiltrator Panels: 769/5	154

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Fax # (559) 732-8141

An area of similar dimensions that is adequate to the primary system must be held in reserve with no structure or impermeable cover for 100% replacement.

SEPTIC SYSTEM REQUIREMENTS

1. The septic tank should have two compartments with a minimum of 1,500 gallons.
2. The absorption area shall consist of 3 leach lines 85 feet in length, 3 feet in width with 12 inches of rock under the perforated pipe placed 8 feet closest edge to closest edge.
3. The absorption area using high capacity infiltrator panels shall consist of 2 lines 77 feet in length.
4. The septic tank and leach lines must be installed level for proper flow and distribution of effluent. Leach bed bottoms must be leveled and raked.
5. A distance of 5 feet is required between the bottom of the leach lines & water table.
6. The ends of the leach lines must be capped.
7. Low flow fixtures must be utilized.
8. The 100% replacement area must not be utilized for construction or covered with impermeable materials.
9. All materials must be approved by The Tulare County Department of Environmental Health.

CONCLUSION

It is concluded that the installation of a septic tank and leach lines at the subject site in accordance with the attached design and drawings will provide the necessary sewage disposal.

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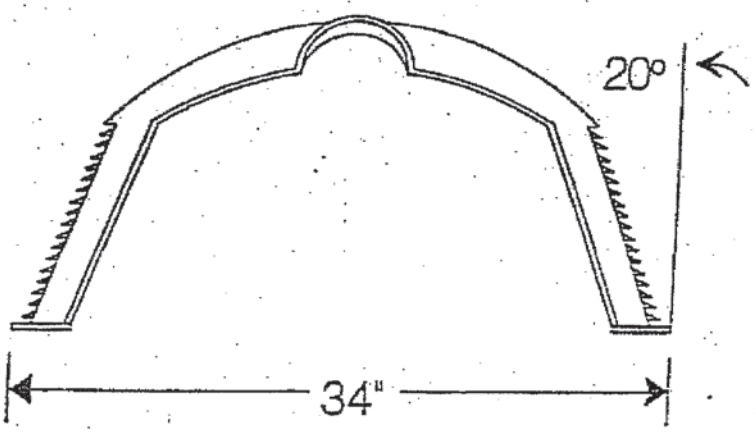
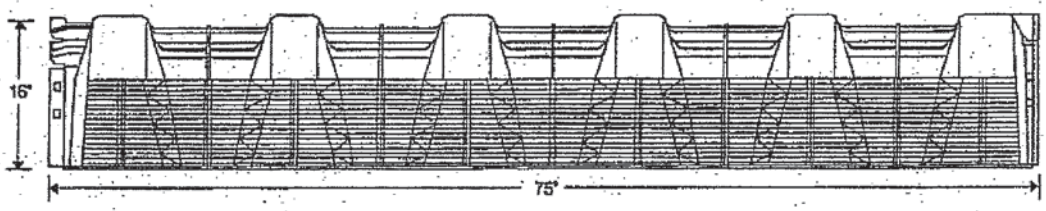
Fax # (559) 732-8141

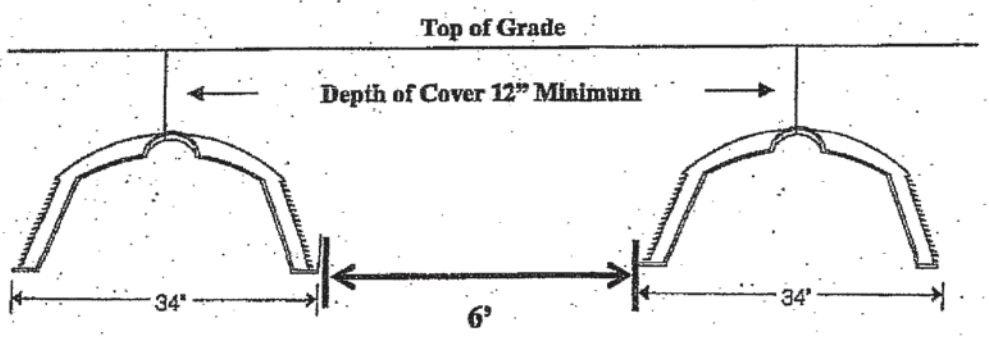
HIGH CAPACITY INFILTRATOR PANEL OPTION

CHAMBER END VIEW



CHAMBER SIDE VIEW





05-2739

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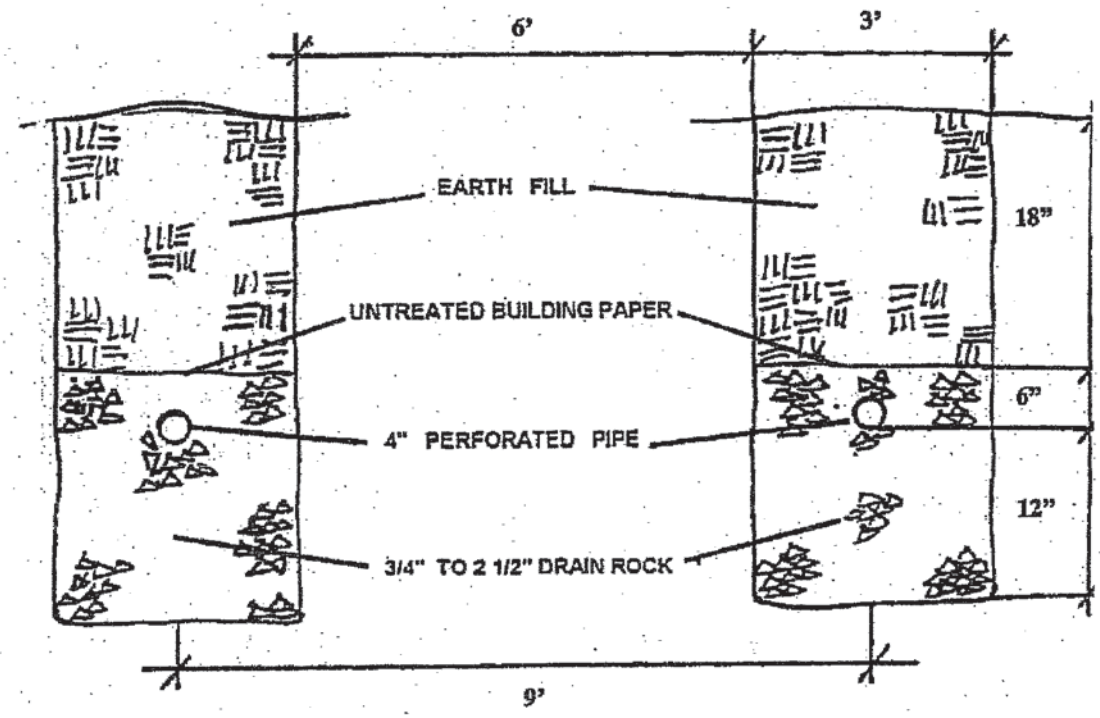
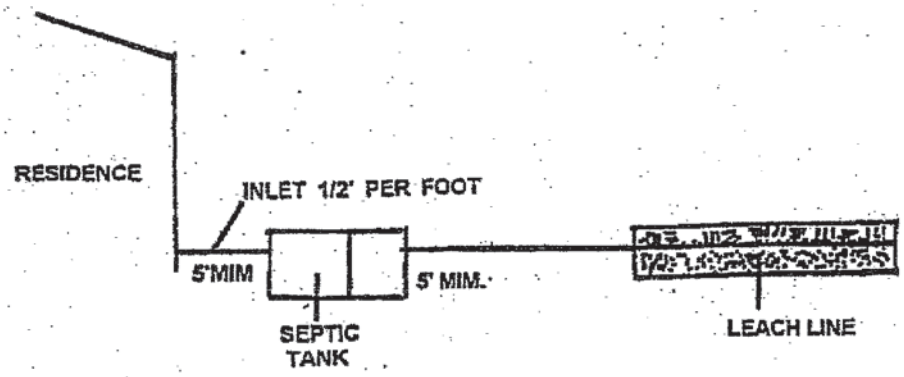
LEACH LINE CROSS SECTION





PROJECT: APN 067-160-039	LEACH LINE CROSS SECTION
CITY: THREE RIVERS	REPORT NO. 205-2739
	CENTRAL VALLEY TESTING, INC.

ROBERTS
ENGINEERING

July 23, 2008

RECEIVED

NOV 17 2008

Mr. Jay Punia
Executive Officer
Central Valley Flood
Protection Board
3310 El Camino Avenue, Suite LL40
Sacramento, CA 95821

Re: Martin Burnham Property
Three Rivers, CA

Dear Mr. Punia:

We wish to modify the State of California Reclamation Board's Kaweah River designated floodway in the vicinity of the confluence of the Main Fork and the North Fork of the Kaweah River in Three Rivers, CA. The property owned by Mr. Burnham is presently in FEMA flood zone "B" and within the State Reclamation Board floodway.

D. M. Stivers performed extensive cross section surveys, and we have done a computer analysis using the U.S. Army Corps of Engineers HEC-RAS Version 3.1.3 program which is run through the latest version of "RiverCAD" released by Boss International. Based upon using very conservative Manning's "n" values, which were determined by field observation, and the current condition of the channel as determined by the extensive cross section survey, the site that Mr. Burnham would like to build on is free of the floodway. Enclosed are three sets of the flood plain study maps and cross sections and a copy of the computer runs using "RiverCAD".

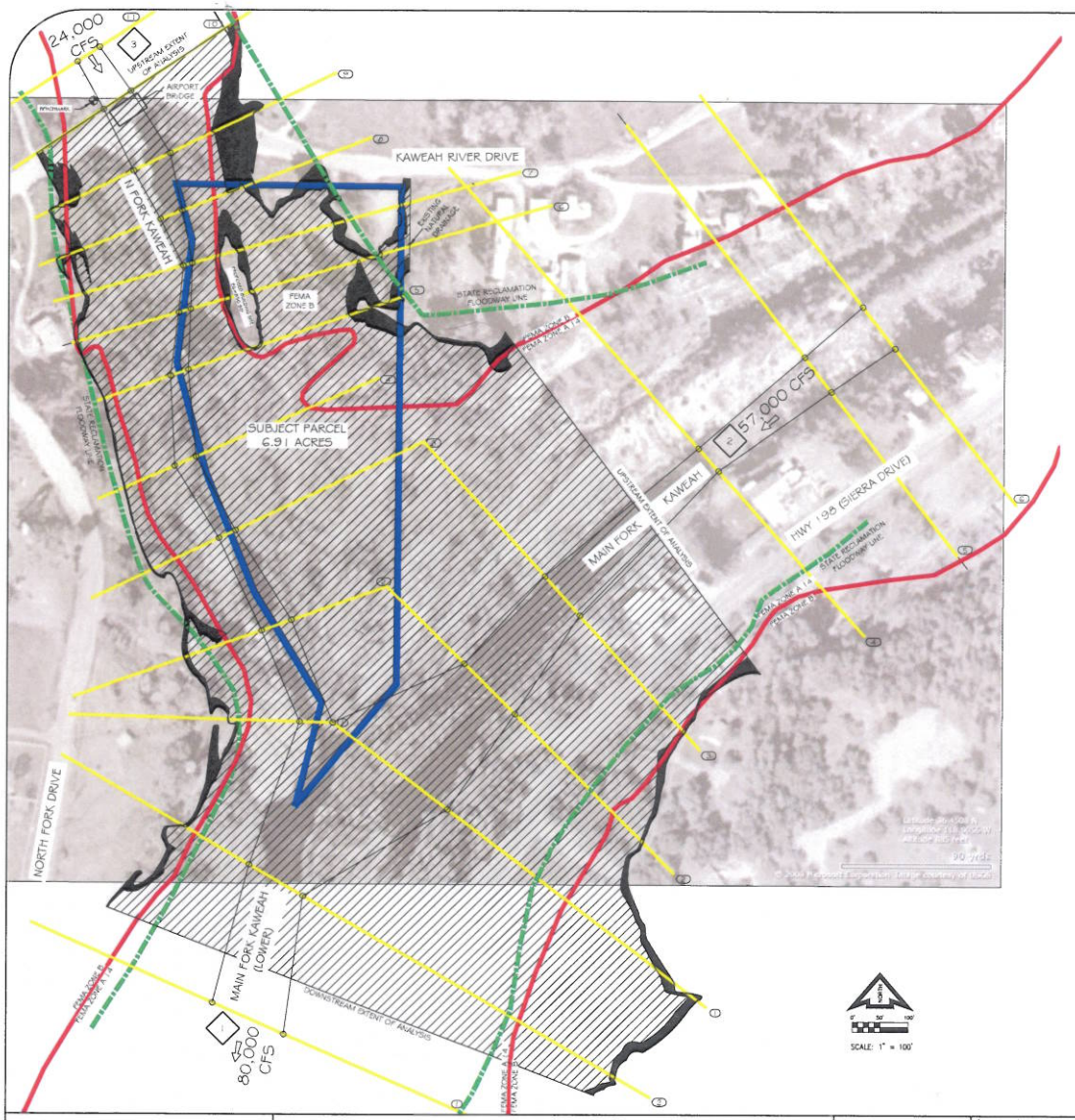
Your approval of this modification of the floodway line would be very much appreciated. If you have any questions, please contact the undersigned.

Very truly yours,

Charles W. Roberts
RCE 15287

REGISTERED PROFESSIONAL ENGINEER
Charles William Roberts
NO. C 15287
Exp. 3-31-09
CIVIL
STATE OF CALIFORNIA

Civil Engineering, Planning and Land Surveying for Central California
P.O. BOX #908, PORTERVILLE, CA 93258 PH: 559-784-6326 FAX: 559-784-6339 www.robertsengineering.com



LEGEND

- REACH 1: LOWER MAIN FORK OF THE KAWEAH RIVER 80,000 cfs
- REACH 2: UPPER MAIN FORK OF THE KAWEAH RIVER 57,000 cfs
- REACH 3: NORTH FORK OF THE KAWEAH RIVER 24,000 cfs
- CROSS SECTION LOCATION AND IDENTIFICATION USED IN HEC-RAS STUDY
- STATE RECLAMATION BOARD KAWEAH RIVER DESIGNATED FLOODWAY LINE AS PER SHEET 1 OF 1 OF THE KAWEAH RIVER DESIGNATED FLOODWAY MAPS APPROVED APRIL 9, 1975
- FEMA FLOODLINE AS PER FEMA FLOOD INSURANCE RATE MAP PANEL 340 OF 1375 COMMUNITY-PANEL NUMBER 065066 0340B EFFECTIVE DATE: SEPTEMBER 29, 1986
- SUBJECT PARCEL
- BENCHMARK USED (SEE DESCRIPTION BELOW)
- FLOODED AREA (>1')
- SHALLOW FLOODED AREA (<1')

THE MANNING'S 'N' VALUES WERE DETERMINED BY FIELD OBSERVATIONS.

THE VOLUMES USED WERE THOSE OBTAINED FROM SHEET 1 OF 1 OF THE KAWEAH RIVER DESIGNATED FLOODWAY MAPS APPROVED APRIL 9, 1975

FLOOD SIMULATION WAS CALCULATED USING RIVERCAD XP (VERSION 7.2.0.1180) UTILIZING HEC-RAS VERSION 3.1.3

FLOODPLAIN STUDY

BEING A PORTION OF THE SOUTHWEST QUARTER OF SECTION 13, TOWNSHIP 17 SOUTH, RANGE 28 EAST, MOUNT DIABLO BASE AND MERIDIAN, TULARE COUNTY, STATE OF CALIFORNIA.

BASED UPON CHANNEL MODIFICATIONS SINCE THE HIGH WATER OF 1997

OWNER

MARTIN BURNHAM
450 EL REPOSO
MONTEREY PARK, CA 91754
(323) 888-4479

ENGINEER

ROBERTS ENGINEERING
PO BOX 908
PORTERVILLE, CA 93258
PHONE: (559) 784-6326
FAX: (559) 784-6339
mr@robertsengineering.com

SURVEYOR

DON STIVERS LAND SURVEYING
40507 SIERRA DRIVE
THREE RIVERS, CA 93271
(559) 280-2624
dmstivers@sbcglobal.net

SITE DESCRIPTION

APN: 067-120-039

THE SUBJECT SITE IS LOCATED APPROXIMATELY ONE MILE NORTH OF THE INTERSECTION OF STATE HIGHWAY 198 (SIERRA DRIVE) AND NORTH FORK DRIVE. IT IS ADJACENT TO AND SOUTH OF KAWEAH RIVER DRIVE.

THE SUBJECT SITE IS ON A SMALL RIDGE THAT PARALLELS THE NORTH FORK OF THE KAWEAH RIVER. IT IS LOCATED APPROXIMATELY 800' UPSTREAM OF THE CONFLUENCE OF THE NORTH FORK OF THE KAWEAH RIVER AND THE MAIN FORK OF THE KAWEAH RIVER.

THE SUBJECT SITE IS LOCATED IN FEMA ZONE B AS PER FEMA FLOOD INSURANCE RATE MAP PANEL 340 OF 1375 COMMUNITY-PANEL NUMBER 065066 0340B EFFECTIVE DATE: SEPTEMBER 29, 1986 AND, FLOOD BOUNDARY AND FLOODWAY MAP PANEL 4 OF 10 COMMUNITY-PANEL NUMBER 065066 0004 EFFECTIVE DATE: SEPTEMBER 29, 1986

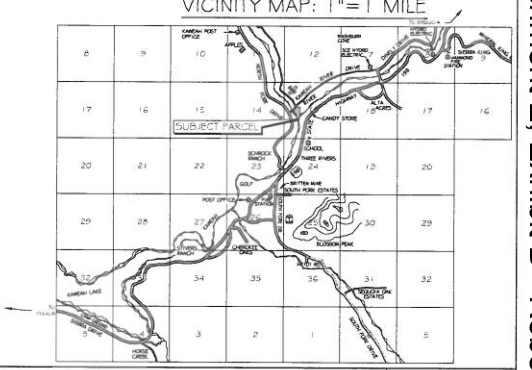
BENCHMARK INFO

BRASS CGS MONUMENT STAMPED "K 930 1957"

THE BENCHMARK USED FOR THIS PROJECT IS LOCATED IN THE TOP OF A GRANITE BOULDER, 39' FEET NORTHWEST OF THE CENTERLINE OF KAWEAH RIVER DRIVE, 23 FEET NORTHWEST OF THE WEST END OF THE AIRPORT BRIDGE, 52 FEET FROM THE CENTERLINE OF THE BRIDGE AND RIVER, 5 FEET LOWER THAN THE BRIDGE DECK.

TAKEN AS: 844.09' PER NGVD 29

VICINITY MAP: 1"= 1 MILE



Project Title: MARTIN BURNHAM FLOOD PLAIN STUDY	Roberts Engineering P.O. BOX 908, 342 N. 2nd St. PORTERVILLE, CALIFORNIA 93257 (559)784-6326 FAX(559)784-6339 www.robertsengineering.com	Approved : CHARLES W. ROBERTS DESIGN ENGINEER RCE 15287 Date	Drawn By : S.R. Revised Date
Sheet Title PROJECT OVERVIEW	Sheet 1 of 4 JOB NO: 2008010		

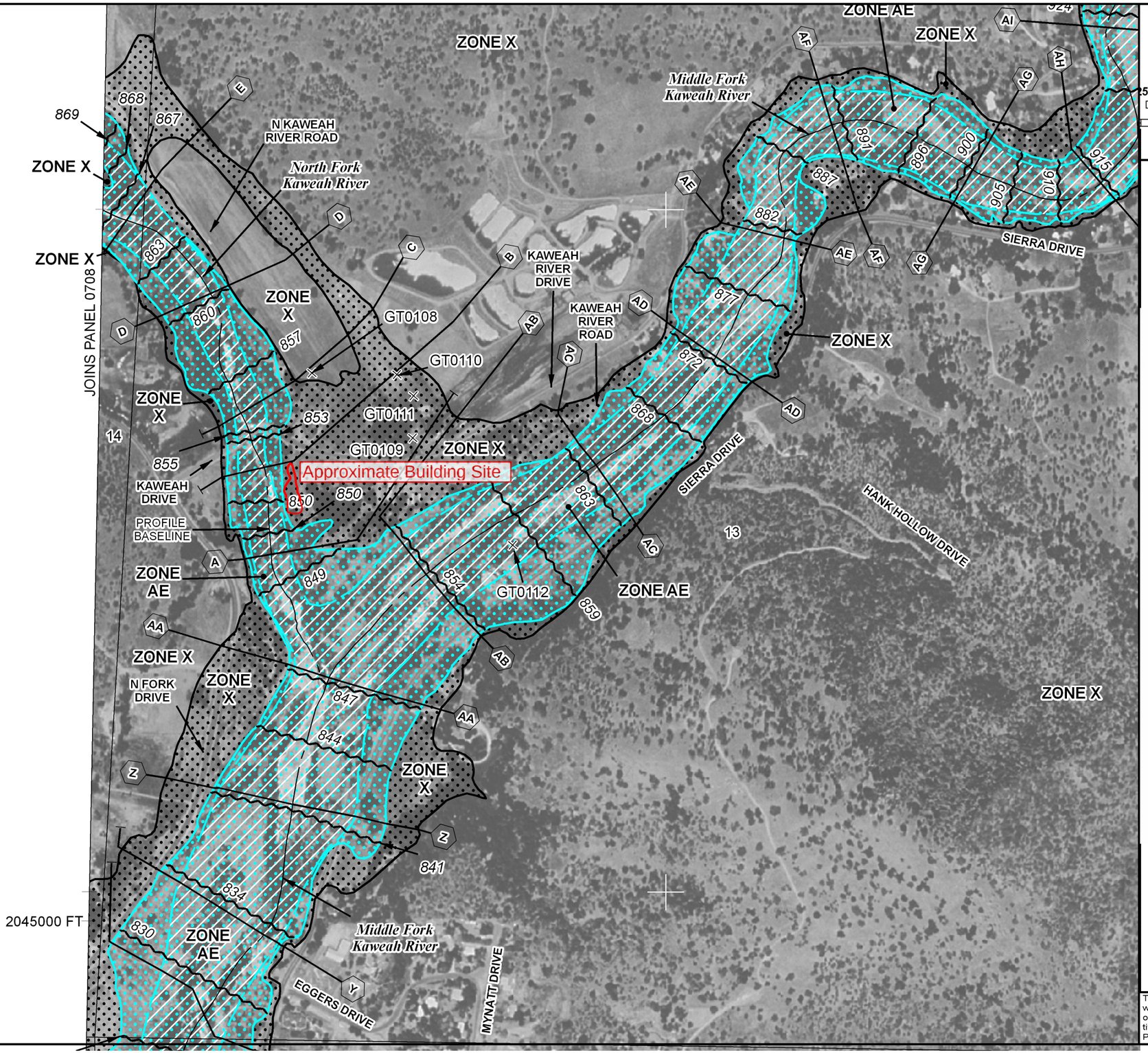
Attachment E, Exhibit B - Roberts Map

TABLE 6 - SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
LOWER TULE RIVER					
Just downstream of confluence of Rhodes and Fine Ditch	[1]	2,940[2]	3,740[2]	12,240[2]	39,540[2]
Just downstream of confluence of Mubbs-Miner Ditch	[1]	2,990[2]	3,790[2]	12,290[2]	39,540[2]
Just downstream of Poplar Ditch	[1]	3,070[2]	3,870[2]	12,370[2]	39,670[2]
Just downstream of Porter Slough	[1]	3,200	4,000	12,500	40,000
MIDDLE FORK KAWEAH RIVER					
At mouth (Lake Kaweah)	513	19,600	50,800	73,000	150,000
Upstream of confluence of South Fork Kaweah River	423	17,800	45,500	64,900	136,000
At gaging station at Three Rivers	418	17,100	43,900	62,800	135,000
Upstream of confluence of North Fork Kaweah River	280	12,900	33,500	48,000	100,000
Upstream of confluence of Salt Creek	253	11,900	31,000	44,600	92,000
NORTH FORK KAWEAH RIVER					
At mouth	138	6,680	15,400	20,700	37,000
Upstream of confluence of Mankin Creek	131	6,550	15,000	20,200	36,500
At gaging station at Kaweah	129	6,540	14,900	20,000	36,400
PORTER SLOUGH					
At Atchison, Topeka & Santa Fe Railway	6.1	140	330	475	1,030
At alignment with Tulsa Street	2.3	95	230	310	590

[1]Site affected by upstream regulations
[2]Site affected by upstream diversions

Attachment F, Exhibit B - FIRM



MAP SCALE 1" = 500'

50 0 500 1000

FEET

METER

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0709E

FIRM

FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 709 OF 2550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	0709	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C0709E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency

Encroachments within the designated floodway, as defined in the Rules and Regulations for Administration of Designated Floodways and Floodway Encroachment Lines, must be approved by The Reclamation Board before they will be permitted

Application forms for encroachment permits can be obtained from the Department of Public Works, Flood Control District, 336 North Ben Maddox Way, Visalia, California or The Reclamation Board in Sacramento, California

The authority to control floodways is vested in The Reclamation Board by Division 5, Part 4, of the California Water Code. Procedures to administer the Designated Floodway are set forth in Title 23, California Administrative Code, Sections 45 through 95

NOTE:
Floodway encroachment lines as shown establish the exterior limit of the designated floodway. Lands outside the designated floodway may be subject to flooding

PHOTOGRAPHED: 6-26-73
PHOTO NO. 3591-183

SCALE: APPROX 1"=100'
0 100 200

PREPARED: Paul Flanagan
PAUL FLANAGAN C.E. 15225

APPROVAL RECOMMENDED:
Carl R. King
CARL R KING C.E. 8373
CHIEF-FLOOD CONTROL DEVELOPMENT BRANCH DWR

APPROVED: DATE:
J. E. McCollam 4/9/75
A.E. McCOLLAM C.E. 17277
CHIEF ENGR. & GEN. MGR. THE RECLAMATION BOARD

PREPARED BY
DEPARTMENT OF WATER RESOURCES
DIVISION OF RESOURCES DEVELOPMENT

THIS MAP CORRECTLY REPRESENTS THE KAWEAH RIVER DESIGNATED FLOODWAY IN TULARE COUNTY ADOPTED BY THE RECLAMATION BOARD;

DATE: OCT. 18, 1974

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE RECLAMATION BOARD

KAWEAH RIVER DESIGNATED FLOODWAY

FLOODWAY BASED ON A FLOOD OF 80,000 cfs, 27,000 cfs

TULARE COUNTY

THREE RIVERS AREA

SHEET 10M OF 22M

cubic feet per second, exceeded any previous flood of record.

* * *

ANOTHER GREAT FLOOD occurred in December 1955. The volume of that flood was smaller than the December 1966 flood, but flooding in Three Rivers was about 4-5 feet higher due to a backwater condition created by debris collecting on the North Fork Drive Bridge.

* * *

OTHER LARGE FLOODS occurred in the vicinity of Three Rivers in November 1950 and in February 1963. Although not as devastating as those of 1955 and 1966, the 1950 and 1963 floods damaged lands and homes near the river.

* * *

INTERMEDIATE REGIONAL FLOODS on Kaweah River and its tributaries are floods that have an average frequency of occurrence in the order of once in 100 years. They are determined from an analysis of flood records on these streams and computed hydrographs of synthetic floods. The analysis indicates that Intermediate Regional Floods on Kaweah River and the North, Middle, and South Forks would be of approximately the same magnitude as the December 1966 flood.

* * *

STANDARD PROJECT FLOOD determinations indicate that flooding could occur on Kaweah River at Three Rivers to depths as much as 3 feet higher than those associated with the Intermediate Regional Flood. Flood depths resulting from Standard Project Floods on the North, Middle, and South Forks of Kaweah River would be about 3 feet higher than those of Intermediate Regional Floods.

* * *

FLOOD DAMAGES caused by recurrences of major known floods would be substantial. Extensive damages would be caused by Intermediate Regional

FLOOD DAMAGE PREVENTION MEASURES. There are no existing, authorized, or proposed flood control projects for Kaweah River or its tributaries above Terminus Dam. At the present time there are no flood plain management measures in effect in the study area.

* * *

HEIGHTS OF FUTURE FLOODS. With an occurrence of the Intermediate Regional Flood in the future, the flood heights would be about the same as those of the December 1966 flood. Flood heights during an occurrence of the Standard Project Flood would be about 3 feet higher than Intermediate Regional Flood heights, on the average. Table I gives a comparison of the Intermediate Regional Flood heights with those of the Standard Project Flood.

* * *

TABLE I

RELATIVE FLOOD HEIGHTS

Flood	Location	Estimated Peak Discharge cfs	Above 1966 Flood feet
	Kaweah River		
Intermediate Regional	at Three Rivers	80,000	0
Standard Project		102,000	3
	North Fork Kaweah River		
Intermediate Regional	at Middle Fork	24,000	0
Standard Project		31,200	3
	Middle Fork Kaweah River		
Intermediate Regional	at North Fork	57,000	0
Standard Project		77,000	3
	South Fork Kaweah River		
Intermediate Regional	at Kaweah River	19,000	0
Standard Project		23,200	3
	Kaweah River		
Intermediate Regional	below South Fork	95,000	0
Standard Project		115,000	3

FLOOD DAMAGE PREVENTION MEASURES. There are no existing, authorized, or proposed flood control projects for Kaweah River or its tributaries above Terminus Dam. At the present time there are no flood plain management measures in effect in the study area.

* * *

HEIGHTS OF FUTURE FLOODS. With an occurrence of the Intermediate Regional Flood in the future, the flood heights would be about the same as those of the December 1966 flood. Flood heights during an occurrence of the Standard Project Flood would be about 3 feet higher than Intermediate Regional Flood heights, on the average. Table I gives a comparison of the Intermediate Regional Flood heights with those of the Standard Project Flood.

* * *

TABLE I

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	Kaweah River		
Intermediate Regional	at Three Rivers	80,000	0
Standard Project		102,000	3
	North Fork Kaweah River		
Intermediate Regional	at Middle Fork	24,000	0
Standard Project		31,200	3
	Middle Fork Kaweah River		
Intermediate Regional	at North Fork	57,000	0
Standard Project		77,000	3
	South Fork Kaweah River		
Intermediate Regional	at Kaweah River	19,000	0
Standard Project		23,200	3
	Kaweah River		
Intermediate Regional	below South Fork	95,000	0
Standard Project		115,000	3

Summary of Staff Hydraulic Analysis

Board Design Flood - WSEL, Existing GE, Depth, and Velocity Distribution.

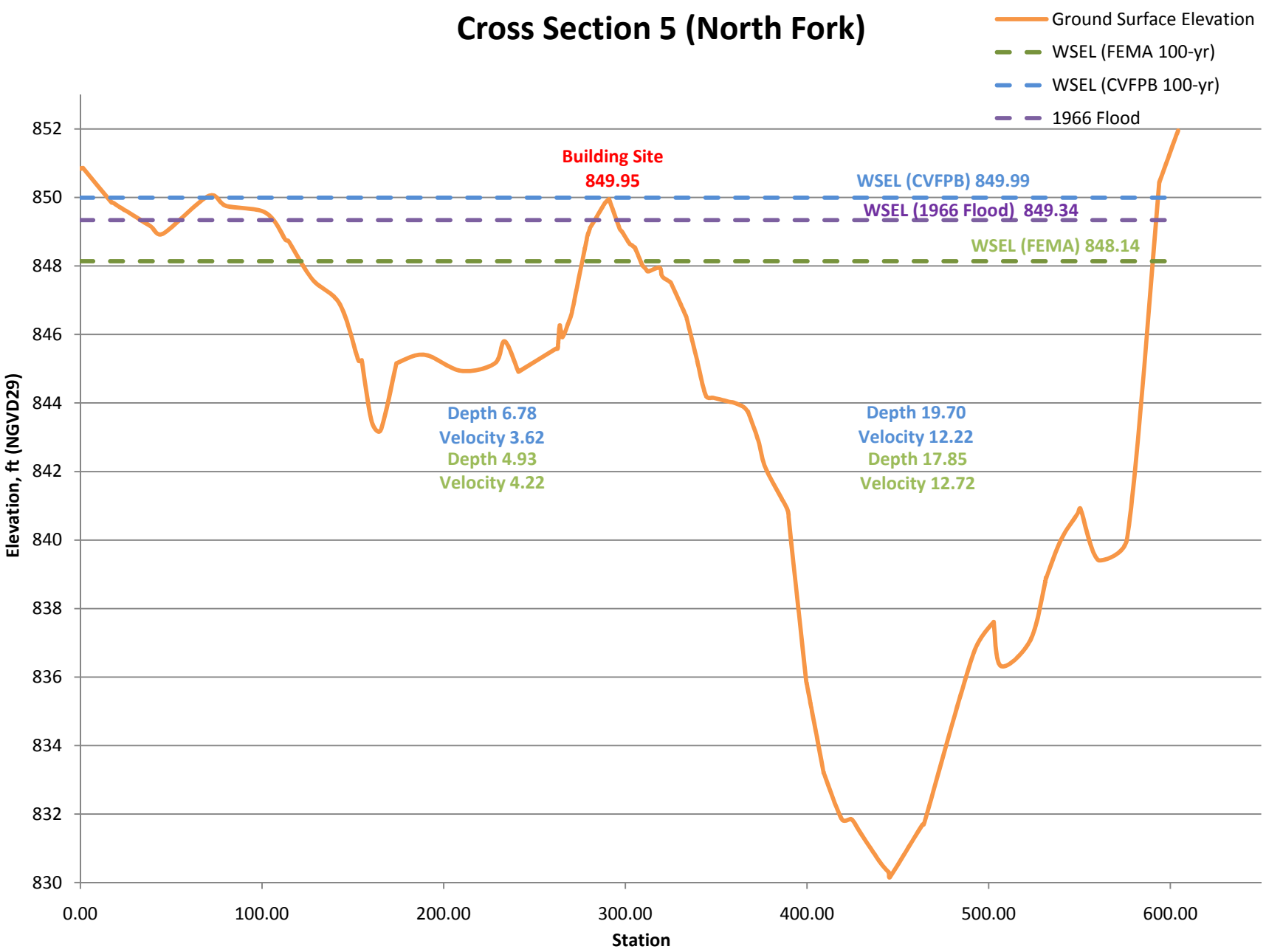
	Elevation [ft]			Depth [ft]		Velocity [ft/s]	
Submitted Cross Sections	Existing Ground Elevation of Building Site	Design Flood WSEL	Difference	Left (Floodplain)	Right (Channel)	Left (Floodplain)	Right (Channel)
XS 5	849.95	849.99	-0.04	6.78	19.7	3.62	12.22
XS 6	850.79	850.28	0.51	3.67	17.39	3.31	12.39
XS 7	851.20	850.53	0.67	3.78	14.45	3.31	11.14
XS 8	849.69	850.55	-0.86	-	18.69	-	13.82

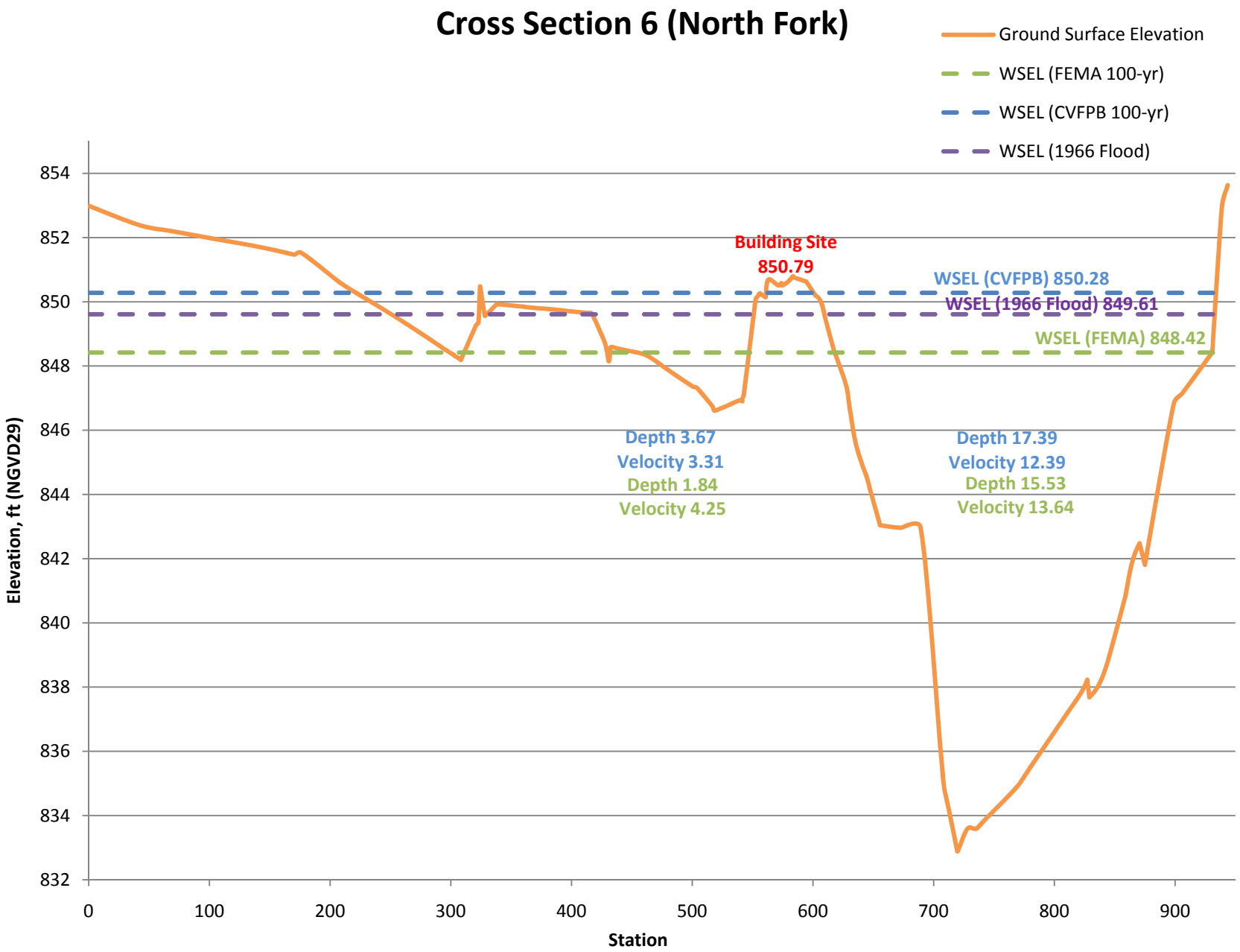
FEMA 100-year Design Flood - WSEL, Existing GE, Depth, and Velocity Dis

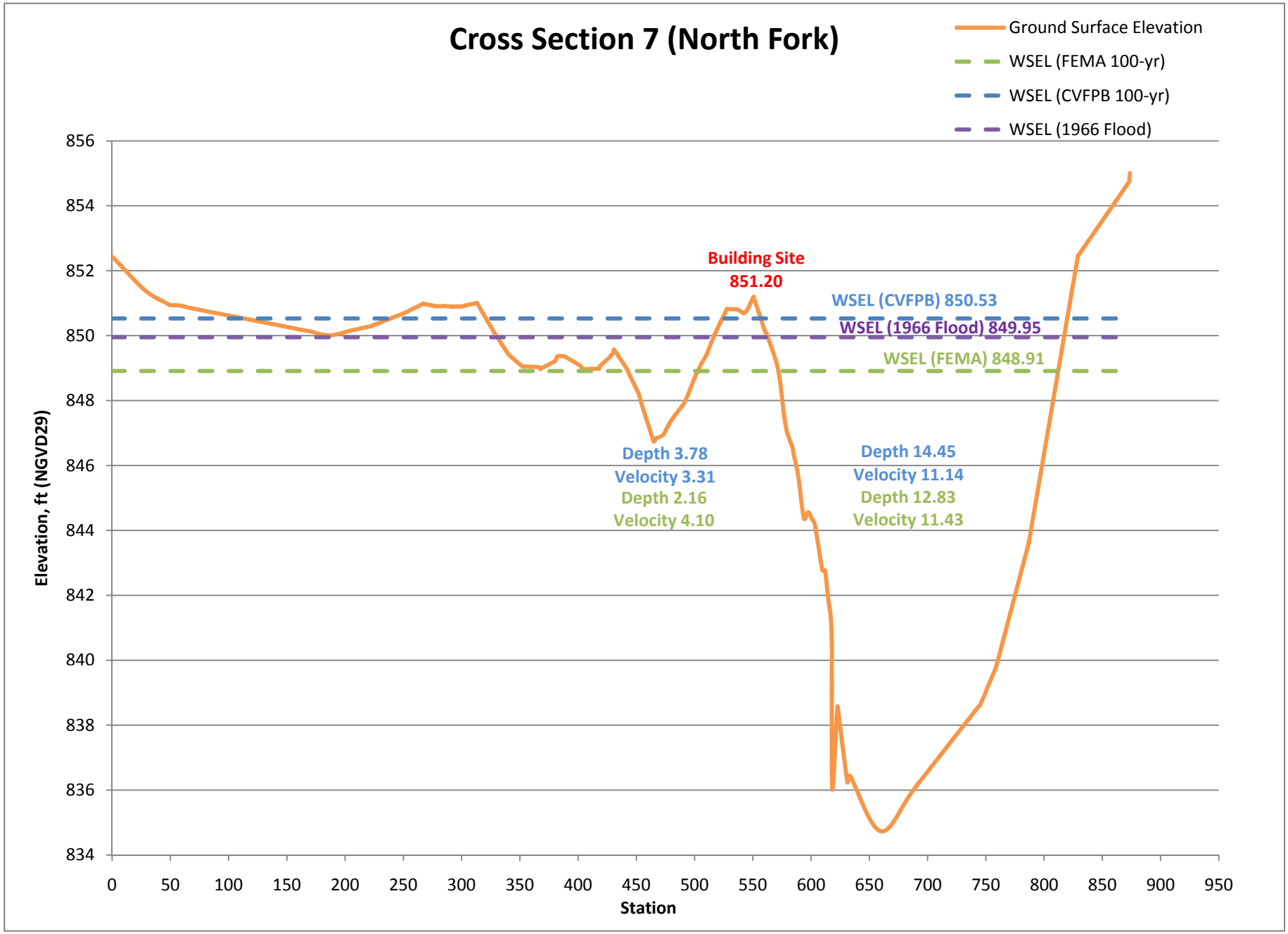
	Elevation [ft]			Depth [ft]		Velocity [ft/s]	
Submitted Cross Sections	Existing Ground Elevation of Building Site	Design Flood WSEL	Difference	Left (Floodplain)	Right (Channel)	Left (Floodplain)	Right (Channel)
XS 5	849.95	848.40	1.55	4.93	17.85	4.22	12.72
XS 6	850.79	848.42	2.37	1.84	15.53	4.25	13.64
XS 7	851.20	848.91	2.29	2.16	12.83	4.10	11.43
XS 8	849.69	849.22	0.47	-	17.36	-	12.92

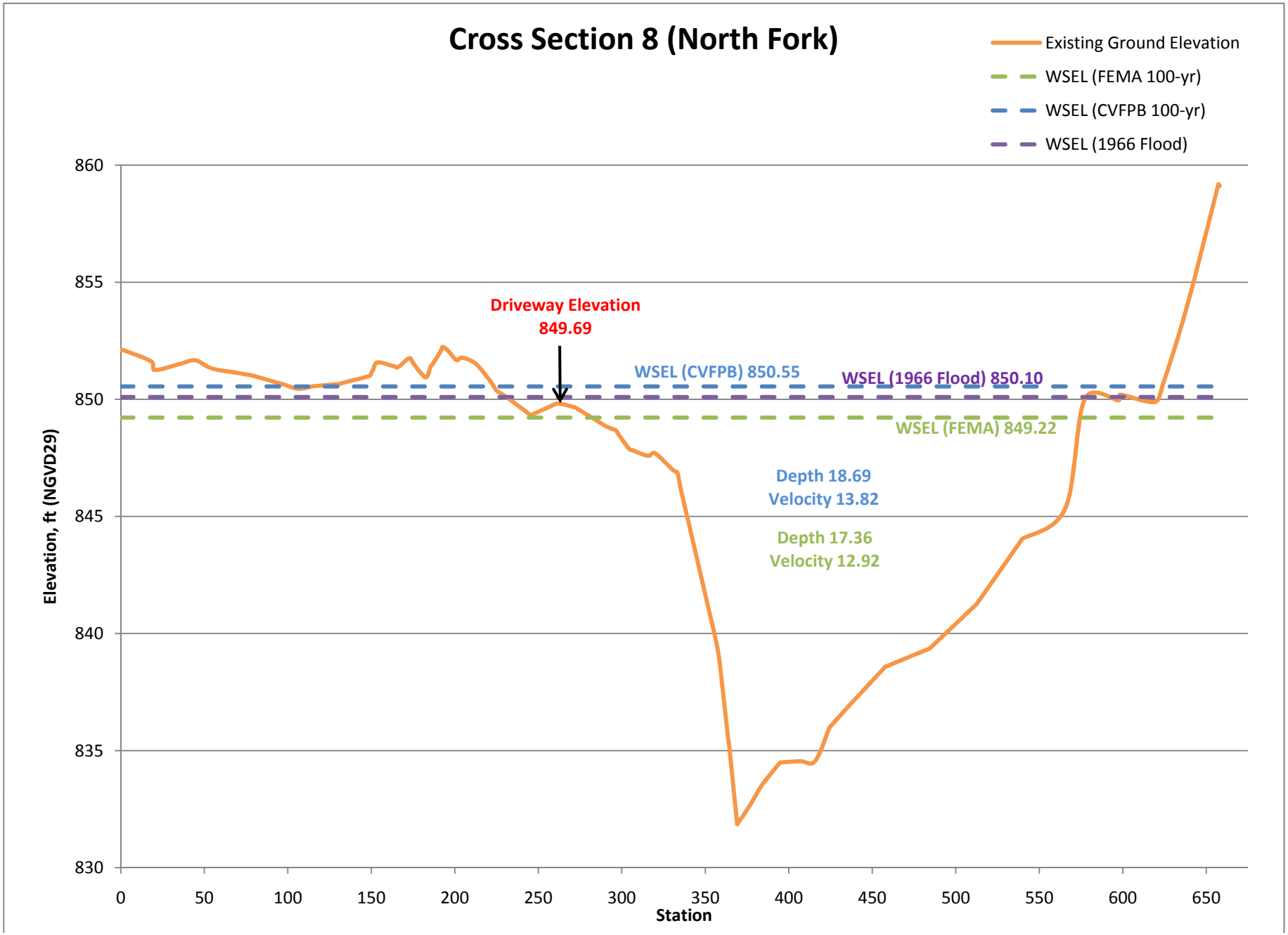
1966 Flood Event - WSEL, GE, Depth, and Velocity Distribution.

	Elevation [ft]			Depth [ft]		Velocity [ft/s]	
Submitted Cross Sections	Existing Ground Elevation of Building Site	1966 Flood WSEL	Difference	Left (Floodplain)	Right (Channel)	Left (Floodplain)	Right (Channel)
XS 5	849.95	849.34	0.61	6.13	19.18	4.23	12.73
XS 6	850.79	849.61	1.18	3.00	16.72	3.93	13.40
XS 7	851.20	849.95	1.25	3.20	15.22	3.62	11.86
XS 8	849.69	850.10	-0.41	-	-	-	-


Cross Section 5 (North Fork)
Ground Surface Elevation
WSEL (FEMA 100-yr)
WSEL (CVFPB 100-yr)
1966 Flood
Building Site
849.95
WSEL (CVFPB) 849.99
WSEL (1966 Flood) 849.34
WSEL (FEMA) 848.14
Depth 6.78
Velocity 3.62
Depth 4.93
Velocity 4.22
Depth 19.70
Velocity 12.22
Depth 17.85
Velocity 12.72
Elevation, ft (NGVD29)
852
850
848
846
844
842
840
838
836
834
832
830
0.00
100.00
200.00
300.00
400.00
500.00
600.00
Station


Cross Section 6 (North Fork)
Ground Surface Elevation
WSEL (FEMA 100-yr)
WSEL (CVFPB 100-yr)
WSEL (1966 Flood)
Building Site
850.79
WSEL (CVFPB) 850.28
WSEL (1966 Flood) 849.61
WSEL (FEMA) 848.42
Depth 3.67
Velocity 3.31
Depth 1.84
Velocity 4.25
Depth 17.39
Velocity 12.39
Depth 15.53
Velocity 13.64
Elevation, ft (NGVD29)
854
852
850
848
846
844
842
840
838
836
834
832
0
100
200
300
400
500
600
700
800
900
Station


Cross Section 7 (North Fork)
Ground Surface Elevation
WSEL (FEMA 100-yr)
WSEL (CVFPB 100-yr)
WSEL (1966 Flood)
Building Site
851.20
WSEL (CVFPB) 850.53
WSEL (1966 Flood) 849.95
WSEL (FEMA) 848.91
Depth 3.78
Velocity 3.31
Depth 2.16
Velocity 4.10
Depth 14.45
Velocity 11.14
Depth 12.83
Velocity 11.43
Elevation, ft (NGVD29)
856
854
852
850
848
846
844
842
840
838
836
834
0
50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800
850
900
950
Station


Cross Section 8 (North Fork)
Existing Ground Elevation
WSEL (FEMA 100-yr)
WSEL (CVFPB 100-yr)
WSEL (1966 Flood)
Driveway Elevation
849.69
WSEL (CVFPB) 850.55
WSEL (1966 Flood) 850.10
WSEL (FEMA) 849.22
Depth 18.69
Velocity 13.82
Depth 17.36
Velocity 12.92
Elevation, ft (NGVD29)
860
855
850
845
840
835
830
0
50
100
150
200
250
300
350
400
450
500
550
600
650
Station

Review of HEC-RAS Analysis and FEMA's FIS Study (Burnham's Case)

Sungho Lee, CVFPB, 04/10/2010

The 100-yr flood discharge of CVFPB is based on existing high water mark and historical data. It is the same value as USACE (Corps) study.

There is a discrepancy of the 100-yr flood discharge between USACE (Corps) and FEMA. If there is a disagreement regarding the flood discharge between the Federal agencies, it is conservative and reasonable to take higher values for public safety and reduce damage.

Table 1. Flood Discharges

River	CVFPB	Corps (1967)	FEMA
Kaweah River at Three Rivers	80,000 cfs	80,000 cfs	62,800 cfs
North Fork	24,000 cfs	24,000 cfs	20,700 cfs
Middle Fork	57,000 cfs	57,000 cfs	48,000 cfs

Based on the FEMA's Flood Insurance Rate Map (FIRM) and Flood Insurance Study (FIS, June 16, 2009), the building site of Mr. Burnham is located between cross section A and B of FIRM map at the North Fork Kaweah River.

The 100-yr flood boundary line of FEMA's study was based on the 5 feet contour data (Backup data of FEMA, 1982). The building site of Mr. Burnham lies between 848 ft contour line and 853 ft contour line at the east side flood plains of lower North Fork Kaweah River. The water surface elevation (WSEL) near the building site is about 850.0 ft. The 100-yr flood boundary line about 850.0 ft was drawn by interpolation between 848 ft and 853 ft contour line. It is difficult for detailed study to adopt the FEMA's study result based on 5 ft contour line.

Mr. Burnham and Robert Engineer submitted a new flood plain study map last year. HEC-RAS model was used to study the hydraulic analysis. This study is based on 2 feet contour data. The study result shows that the contour lines of 849 ft and 851 ft pass the east side of Mr. Burnham's building site. (Refer Figure 1 and 2)

Based on the contour map of Robert Engineering and result of HEC-RAS study, the surrounding area of proposed building site is submerged under the water for both CVFPB's Design Flow (80,000 cfs) and FEMA's 100-yr Flow (62,800 cfs). (Refer Figure 3, 4, and 5)

The water surface elevation (WSEL), depth, and velocity of North Fork Kaweah River for both CVFPB's Design Flow (Q=24,000 cfs) and FEMA's 100-yr Flow (Q=20,700 cfs) are given in the following tables.

Table 2. WSEL, Depth, and Velocity for CVFPB's Design Flow

	CVFPB(Q=24,000 cfs)			Depth(ft)		Velocity(ft/s)	
	WSEL(ft)	Elevation of Building Site(ft)	Diff(ft)	Left (Floodplain)	Right (Channel)	Left (Floodplain)	Right (Channel)
Cr Sec 5	852.91	852.91	0.00	4.32	19.02	3.90	12.72
Cr Sec 6	853.29	853.87	0.58	2.44	16.82	3.43	13.27
Cr Sec 7	853.69	853.96	0.27	2.18	14.80	3.14	12.04

Table 3. WSEL, Depth, and Velocity for FEMA's 100-yr Flow

	FEMA(Q=20,700 cfs)			Depth(ft)		Velocity(ft/s)	
	WSEL(ft)	Elevation of Building Site(ft)	Diff(ft)	Left (Floodplain)	Right (Channel)	Left (Floodplain)	Right (Channel)
Cr Sec 5	851.00	852.91	1.91	4.14	17.12	4.31	13.60
Cr Sec 6	851.43	853.87	2.44	1.92	14.97	4.19	14.99
Cr Sec 7	852.20	853.96	1.76	1.33	13.31	3.04	12.70

The ground elevation of proposed building site ranges 852.91 ft to 853.96 ft.
It is 0.0 ft to 0.58 ft above WSEL of Designated Flow of CVFPB and 1.76 ft to 2.44 ft above WSEL of 100-yr Flow of FEMA.

The average depth of the east side of proposed building site ranges 2.18 ft to 4.32 ft for Designated Flow of CVFPB and 1.33 ft to 4.14ft for 100-yr Flow of FEMA.

The average flow velocity of the east side of proposed building site ranges 3.14 ft/s to 3.90 ft/s for Designated Flow of CVFPB and 3.04 ft/s to 4.31 ft/s for 100-yr Flow of FEMA.

The average depth of the west side of proposed building site ranges 14.80 ft to 19.02 ft for Designated Flow of CVFPB and 13.31 ft to 17.12 ft for 100-yr Flow of FEMA.

The average flow velocity of the west side of proposed building site ranges 12.04 ft/s to 13.27 ft/s for Designated Flow of CVFPB and 12.70 ft/s to 14.99 ft/s for 100-yr Flow of FEMA.

Large flood on main channel of Kaweah River are characterized by high rate of rise of WSEL and high velocity. Swiftly flowing and rapidly rising water elevation causes extreme danger to human's life, livestock, and property.

The CVFPB's Design Flow should be applied for the case of Mr. Burnham. The ground elevation of proposed building site has to be elevated at least 2.0 ft above the WSEL of CVFPB's Design Flow to protect human's life, consider public safety and reduce flood damage.

It is necessary to construct elevated access road without any interruption of access or evacuation for emergency during high and large flood.

- ***Levee Slope Roughness (feet):*** Levee slope roughness is a measure of the roughness of the levee slope that produces a retarding effect on the flow and a related shear stress on the levee slopes, causing erosion. This may often be obtained from the H&H team or from data available for the levee reach (see the 'Technical Background' Memorandum for more details).

In addition to the default values, the user can select the "user-specified" option in the pull-down menu for the type of levee soils, these default values will be hidden and the user will be prompted to enter the site-specific values which might be based on the site-specific laboratory and/or field test data or judgment.

Table 1 ESP Spreadsheet Default Values for Critical Shear Stress (τ_c), Erodibility Coefficient (k) and Levee Slope Roughness (k_l)

Material	ASTM Typical Soil Type	Critical Shear Stress, τ_c (psf)	Erodibility Coefficient, k (ft^3/lb-hr)	Levee Slope Roughness, k_l (feet)*
Very Resistant	Cobbles	4.869	0.005	0.33
Resistant	Gravel (GP-GW)	1.058	0.021	0.157
Moderately Resistant	CLAY (CL, CH, SC, GC)	0.094	0.094	0.000013
Erodible	SAND (SP, SM and mixtures)	0.014	0.409	0.0197
Very Erodible	SILT (ML)	0.003	1.867	0.00020

* Used only in wave erosion analyses

- **Water Bed Channel Soil Type:** This submenu allows the user to input the soil type for the bed channel material. This parameter is used to calculate the shear stresses imposed on the material. The user may select from one of the options in the pull-down menu to indicate the type of bed channel material encountered in the field. The user may choose to select one of the following material types.
    - Very Rough
    - Rough
    - Moderate Roughness
    - Smooth
    - Very Smooth

Based on the material type selected, the spreadsheet will select values describing the roughness of the bed channel material from Table 2.

Suggested Maximum Permissible Mean Channel Velocities

Channel material (1)	Mean channel velocity (fps) (2)
Fine sand	2.0
Coarse sand	4.0
Fine gravel[a]	6.0
Earth	—
Sandy silt	2.0
Silt clay	3.5
Clay	6.0
Grass-lined earth (slopes less than 5%)[b]	—
Bermuda grass	—
Sandy silt	6.0
Silt clay	8.0
Kentucky bluegrass	—
Sandy silt	5.0
Silt clay	7.0
Poor rock (usually sedimentary)	10.0
Soft sandstone	8.0
Soft shale	3.5
Good rock (usually igneous or hard metamorphic)	20.0

[a] For particles larger than fine gravel (about 20 mm = 3/4 in.), see Figures 2-29 and 2-30.

[b] Keep velocities less than 5.0 fps unless good cover and proper maintenance can be obtained.

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE RECLAMATION BOARD

PERMIT NO. 15365 BD

This Permit is issued to:

Jess D. Hayes
516 North Fairway
Visalia, CA 93291

To construct a private residence on the left bank overflow area of the Kaweah River. The project is located northeast of the town of Three Rivers at the confluence of North Fork Kaweah and Kaweah Rivers. Section 13, T17S, R28E, M.D.B.&M. Kaweah River, Tulare County

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project described above.

The Reclamation Board, on the 25th day of May 1990, approved this application and the plans attached thereto. Permission is granted to proceed with the work described in this application, which is incorporated herein by reference, subject to the following General and Special Conditions.

(SEAL)

Dated: MAY 25 1990

Original signed by [illegible]
General Manager

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 - 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Reclamation Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Reclamation Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

(over)

EIGHT: This permit does not establish any precedent with respect to any other application received by The Reclamation Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

[illegible]

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Reclamation Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS:

THIRTEEN: The permittee shall notify the Department of Water Resources by telephone, (916) 445-3942, at least three (3) working days prior to start of work.

FOURTEEN: All trees and brush cleared shall be completely burned or otherwise removed from the overflow area of the Kaweah River, and no downed trees or brush shall be allowed to remain in the floodway during the flood season between November 15 and July 20.

FIFTEEN: A detailed profile and plan view for all utilities shall be submitted and approved by The Reclamation Board prior to start of construction.

SIXTEEN: No construction shall be done within 10 feet of the top of the Riverbank.

SEVENTEEN: The finished floor elevation shall be at least two feet above the design flood plane elevation of 845.0 feet, USGS Datum.

EIGHTEEN: That during construction of the dwelling no stockpiling of material, temporary buildings or equipment shall remain in the floodway during the flood season from November 15 to July 20.

NINETEEN: The overflow area shall be restored to at least the same condition that existed prior to commencement of work.

TWENTY: In the event the dwelling is damaged to the extent of more than 50 percent of its market value, the structure cannot be reconstructed or replaced without approval of The Reclamation Board. If not repaired or replaced, the remaining portion of the dwelling shall be completely removed from the floodway.

TWENTY-ONE: No further construction, other than that covered by this application, shall be done in the area without the prior approval of The Reclamation Board.

SPECIAL CONDITIONS FOR PERMIT NO. 15365 BD: (continued)

TWENTY-TWO: The three concrete grade beams shall extend to a depth of 6 feet below the existing ground or to sound bedrock, whichever is less, shall be reinforced with a minimum of 0.2 percent reinforcing steel and shall be parallel to the flow of the river.

TWENTY-THREE: The lattice work at the ends of the building between the grade beams shall be removed during flood flows to allow passage of flood waters.

TWENTY-FOUR: The permittee agrees to defend, hold harmless and indemnify the State of California, its officers, agents and employees, from all claims and demands from or liability to any person or entity for personal injury or property damage arising out of or resulting from the design, construction, installation, operation, maintenance or use of the work structure or improvement that is authorized by this permit.

TWENTY-FIVE: The applicant will enter into a compliance agreement that is satisfactory to the Board.

Mike Luttropp

MAR 02 1990

Application No. 15365

Mr. Jess D. Hayes
516 North Fairway
Visalia, CA 93291

Dear Mr. Hayes:

Staff has completed its review of your Reclamation Board Application No. 15365 to construct a single family dwelling within the left bank overflow area of the middle fork of the Kaweah River.

The existing capacity of the channel of the middle fork of the Kaweah River is not adequate to contain flows for a 100-year flood. There are existing structures on the left bank of the river upstream of this location and in the town of Three Rivers. However, additional fills and structures within the designated floodway will further reduce the inadequate channel capacity and impede flood flows. "Uses of Floodways" as administered by The Reclamation Board does not permit structures for human habitation within the designated floodway. Therefore, your Reclamation Board Application No. 15365 is denied.

You may appeal this decision by requesting the Board to consider granting you a variance to its standards. Your request must be made in writing within 30 days from the date of this letter.

If you have any questions, please contact Melvin M. Schwartz at the above address or telephone (916) 324-3889.

Sincerely,

Original signed by
Raymond E. Barsch

RAYMOND E. BARSCH
General Manager

cc: Colonel Jack A. Le Cuyer
District Engineer
Sacramento District
U. S. Army Corp of Engineers
650 Capitol Mall
Sacramento, CA 95814

bcc: Mike Luttropp
J. Cooper

C

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814-4794

REPLY TO
ATTENTION OF

December 14, 1989

Navigation and Flood Control Unit (15365)

The Reclamation Board
State of California
1416 - 9th Street, Room 455-6
Sacramento, California 95814

Members of the Board:

We have reviewed your letter, dated November 14, 1989, enclosing application by Jess D. Hayes (Reclamation Board Number 15365), for approval of plans. These plans cover construction of a private residence on the left bank overflow area of the Middle Fork Kaweah River. The location of this proposed work is just upstream from the confluence with the North Fork Kaweah River at Three Rivers, in Section 13, Township 17 South, Range 28 East, M.D.B.&M, Tulare County.

The proposed residence does not affect a federally constructed project. However, the proposed residence is located within the overflow area of the Kaweah River and would therefore be subject to flooding and/or flood damage. It is the policy of this office to recommend against any structures used for human habitation that would be subject to flooding. In addition, the guidelines established in Executive Order 11988 requires that the Corps make recommendations towards reducing the risk of flood loss due to occupancy of flood plains. Accordingly, we recommend that your Board deny this application.

Sincerely,

Jack A. Le Cuyer
Colonel, Corps of Engineers
District Engineer

Copy Furnished:

DWR, ATTN: M. Luttropp

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE RECLAMATION BOARD

PERMIT NO. 15493 BD

This Permit is issued to:

William I. and Betty R. Hudson
P. O. Box 34
Kaweah, CA 93237

To construct a private residence in the right bank floodway of the North Fork Kaweah River. The project is located southeast of the town of Kaweah and 1.1 miles upstream from the confluence with the Middle Fork of Kaweah River. Section 11, T17S, R28E, M.D.B.&M. Kaweah River, North Fork, Tulare County.

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project described above.

The Reclamation Board, on the _____ day of _____, 19___, approved this application and the plans attached thereto. Permission is granted to proceed with the work described in this application, which is incorporated herein by reference, subject to the following General and Special Conditions.

(SEAL)

Dated: JUL 17 1990

Arnold W. Johnson
for General Manager

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 - 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Reclamation Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Reclamation Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Reclamation Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Reclamation Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS:

THIRTEEN: That the flood carrying capacity of the floodway shall be restored to the original condition which existed prior to construction of the access road. An engineered plan for the restoration work shall be submitted to, and approved by, The Reclamation Board prior to start of construction.

FOURTEEN: That the footings for the retaining wall constructed around the perimeter of the building pad shall be protected against undercutting by flood flows. An engineered plan for the work shall be submitted to, and approved by, The Reclamation Board prior to start of construction.

FIFTEEN: The applicant shall arrange for an inspector from the Department of Water Resources to be at the site prior to any excavation and during all backfill operations.

SIXTEEN: For availability and scheduling of an inspector, the applicant shall contact the Department of Water Resources at telephone number (916) 445-3942 at least 10 working days prior to proposed start of work.

SEVENTEEN: That all trees and brush cleared shall be completely burned or otherwise removed from the overflow area of the Kaweah River, and no downed trees or brush shall be allowed to remain in the floodway during the flood season between November 15 and July 20.

EIGHTEEN: That the finished floor elevation shall be at least two feet above the design flood plane elevation of 893.0 feet, NGVD Datum.

NINETEEN: That no construction shall be done within 10 feet of the top of the riverbank.

TWENTY: That during construction of the dwelling no stockpiling of material, temporary buildings or equipment shall remain in the floodway during the flood season from November 15 to July 20.

TWENTY-ONE: That an "as constructed" detailed cross-sectional view and plan view for the septic system shall be submitted to The Reclamation Board.

SPECIAL CONDITIONS FOR PERMIT NO. 15493 BD: (continued)

TWENTY-TWO: That in the event the dwelling is damaged to the extent of more than 50 percent of its market value, the structure cannot be reconstructed or replaced. The remaining portion of the dwelling, including appurtenances, shall be completely removed from the floodway.

TWENTY-THREE: That no further construction, other than that covered by this application, shall be done in the area without the prior approval of The Reclamation Board.

TWENTY-FOUR: That the overflow area shall be restored to at least the same condition that existed prior to commencement of work.

Mike Luttropp

JUN 18 1990

Application No. 15493

Mr. Bill Hudson
P. O. Box 34
Kaweah, CA 93237

Dear Mr. Hudson:

Your request to construct a single-family dwelling within the right bank overflow area of the North Fork Kaweah River Designated Floodway in Tulare County was considered by The Reclamation Board at its meeting on Wednesday, June 6, 1990.

The Board denied your request because Reclamation Board standards do not permit dwellings for human habitation within the floodway. The vote, however, was 3 to 2 in favor of granting your request. State law requires a majority of the entire seven-member Board for approval. Your request fell one vote short of such approval. You may wish to consider requesting a reconsideration of the Board's decision at a future meeting when the full Board is present. The next Board meeting is scheduled for Thursday, July 12, 1990, at 9 a.m. in the Resources Building auditorium, 1416 Ninth Street, Sacramento, CA.

If you have any questions, please feel free to contact me at (916) 445-9454 or Arnold Johnson, Chief Engineer, at (916) 445-9457 regarding a future appearance before the Board.

Sincerely,

Original signed by
Raymond E. Barsch

RAYMOND E. BARSCH
General Manager

cc: Colonel Jack A. Le Cuyer
District Engineer
Sacramento District
U. S. Army Corps of Engineers
650 Capitol Mall
Sacramento, CA 95814-4794

Mr. Herbert J. Knierim
Department of Public Works
County of Tulare
County Civic Center
Visalia, CA 93291

bcc: Gene Snow
Mike Luttropp
Bill Mancebo
Mel Schwartz
Dee Davis
Neil Gould

MMSchwartz:cp

APR 2 6 1996

Application No. 16586

Ms. Karen Ricci
Post Office Box 669
Three Rivers, California 93271

Dear Ms. Ricci:

Your Reclamation Board Application No. 16586 to construct a private residence on the left bank overflow area of the Middle Fork Kaweah River Designated floodway (Zone A15 of FEMA Floodplain), north of the town of Three Rivers at 42493 Sierra Drive in Tulare County, is denied because The Reclamation Board does not allow structures for human habitation within the floodways.

Exceptions will be considered if the proposed structures are within FEMA's Zone C or Zone B with the finish floor above elevation of 500-year flood event.

You may appeal this decision by requesting a hearing before the Board. Your request must be made in writing within 30 days of this letter.

For further information, you may contact Donald Jackson at the above address or telephone (916) 653-0402.

Sincerely,

Original Signed By:

Raymond E. Barsch
General Manager

cc: U. S. Army Corps of Engineers
Sacramento District
Navigation and Flood Control Unit
1325 J Street, 14th Floor
Sacramento, California 95814

bcc: Donald Yeoman

SBrandon:pjb

Text:A\wp6.1\Kricci.Ltr

April 2, 2003

The Reclamation Board
1416 Ninth St.
Sacramento, CA 95814

Attn: Mr. Stephen T. Bradley
Chief Engineer

Dear Mr. Bradley:

I own property in Tulare County, APN# 067-160-039 (8.49 acres) and APN# 067-160-040 (5.7 ACRES) located in Three Rivers. This property lies between the North Fork and the Middle Fork of the Kaweah River as shown on the enclosed map.

The request I wish to make is that I be allowed to use the FEMA 500 year flood line for development. There is a large knoll in this area that has never been breached by water. In fact none of the 500 year flood line has been breached in this area. Again, I would like to be able to use the FEMA 500 year flood line to build.

I would greatly appreciate any assistance that you can provide. If possible, or feasible, I would like to meet you or your staff at your earliest convenience.

Enclosed find photos and maps regarding this property.

Thanking you in advance.

Sincerely,

Marguerite M. Ingle

Marguerite M. Ingle
P.O. Box 357
Three Rivers, CA 93271
(559) 561-3114

Encl.

4-10-03

I called Mrs. Ingle & explained to her about dwelling not allowed in D.F. I told her she could send an application to go to Board but staff will deny it, sent her Title 23 & application form. SAM

STATE OF CALIFORNIA - THE RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, GOVERNOR

THE RECLAMATION BOARD
3310 El Camino Ave., Rm. LL40
SACRAMENTO, CA 95821
(916) 574-0609 FAX: (916) 574-0682
ERMITS: (916) 574-0653 FAX: (916) 574-0682

June 1, 2004

Mr. Kevin Fellows, P.E.
Quad Knopf
5110 West Cypress Avenue
P.O. Box 3699
Visalia, California 93278

Dear Mr. Fellows:

Re: Mike Robinson property within the North Fork Kaweah River Designated Floodway

Your proposal on behalf of Mr. Mike Robinson, the property owner (P.N. 067-070-025) to realign the existing designated floodway boundary along the right bank of the North Fork of the Kaweah River in the Three Rivers area, Tulare County; to exclude an elevated area within the floodway in order to construct future shop/barn, an office/guest was considered by the Board at its meeting of May 21, 2004 and was denied.

You may wish to petition the Board, pursuant to California Code of Regulations, Title 23, Section 23, for reconsideration of this denial. Your petition must be in writing and filed 30 days from the date of this letter.

If you have any questions, please contact Sam Brandon, Engineering Associate, Water Resources (Specialist), for the Department of Water Resources' Division of Flood Management, at (916) 574-0651.

Sincerely,

Stephen T. Bradley

Stephen T. Bradley
Chief Engineer

cc: Army Corps of Engineers

RECEIVED
AUG 13 2004
Department of Water Resources

STATE OF CALIFORNIA
THE RESOURCES AGENCY
THE RECLAMATION BOARD

PERMIT NO. 17809 GM

This Permit is issued to:

Mike Robinson
230 No. 11
Hanford, California 93230

To construct a 40- by 50-foot barn on the right (west) bank designated floodway of the Kaweah River. The project is located approximately 2 miles north of Three Rivers east of North Fork Drive (Section 11, T17S, R28E, MDB&M, Kaweah River, Tulare County).

NOTE: Special Conditions have been incorporated herein which may place limitations on and/or require modification of your proposed project described above.

(SEAL)

Dated: AUG 13 2004

Rob D Task
General Manager

GENERAL CONDITIONS:

ONE: This permit is issued under the provisions of Sections 8700 – 8723 of the Water Code.

TWO: Only work described in the subject application is authorized hereby.

THREE: This permit does not grant a right to use or construct works on land owned by the Sacramento and San Joaquin Drainage District or on any other land.

FOUR: The approved work shall be accomplished under the direction and supervision of the State Department of Water Resources, and the permittee shall conform to all requirements of the Department and The Reclamation Board.

FIVE: Unless the work herein contemplated shall have been commenced within one year after issuance of this permit, the Board reserves the right to change any conditions in this permit as may be consistent with current flood control standards and policies of The Reclamation Board.

SIX: This permit shall remain in effect until revoked. In the event any conditions in this permit are not complied with, it may be revoked on 15 days' notice.

SEVEN: It is understood and agreed to by the permittee that the start of any work under this permit shall constitute an acceptance of the conditions in this permit and an agreement to perform work in accordance therewith.

EIGHT: This permit does not establish any precedent with respect to any other application received by The Reclamation Board.

NINE: The permittee shall, when required by law, secure the written order or consent from all other public agencies having jurisdiction.

TEN: The permittee is responsible for all personal liability and property damage which may arise out of failure on the permittee's part to perform the obligations under this permit. If any claim of liability is made against the State of California, or any departments thereof, the United States of America, a local district or other maintaining agencies and the officers, agents or employees thereof, the permittee shall defend and shall hold each of them harmless from each claim.

ELEVEN: The permittee shall exercise reasonable care to operate and maintain any work authorized herein to preclude injury to or damage to any works necessary to any plan of flood control adopted by the Board or the Legislature, or interfere with the successful execution, functioning or operation of any plan of flood control adopted by the Board or the Legislature.

TWELVE: Should any of the work not conform to the conditions of this permit, the permittee, upon order of The Reclamation Board, shall in the manner prescribed by the Board be responsible for the cost and expense to remove, alter, relocate, or reconstruct all or any part of the work herein approved.

SPECIAL CONDITIONS FOR PERMIT NO. 17809 GM

THIRTEEN: All work approved by this permit shall be in accordance with the submitted drawings and specifications except as modified by special permit conditions herein. No further work, other than that approved by this permit, shall be done in the area without prior approval of The Reclamation Board.

FOURTEEN: The permittee shall maintain the permitted encroachment(s) and the project works within the utilized area in the manner required and as requested by the authorized representative of the Department of Water Resources, Marysville Levee District or any other agency responsible for maintenance.

FIFTEEN: The permittee shall contact the Department of Water Resources by telephone, (916) 574-1213, and submit the enclosed postcard to schedule a preconstruction conference. Failure to do so at least 10 working days prior to start of work may result in delay of the project.

SIXTEEN: The proposed structure is located within the Kaweah River Designated Floodway and may be subject to periodic flood flows. The Reclamation Board, Department of Water Resources and Marysville Levee District shall not be held liable for any damages to the permitted encroachment(s) within the Kaweah River Designated Floodway resulting from flood fight, operation, maintenance, inspection, emergency repair, or from releases of water from storage resevoirs.

SEVENTEEN: The permittee may be required, at permittee's cost and expense, to remove, alter, relocate, or reconstruct all or any part of the permitted encroachment(s) if removal, alteration, relocation, or reconstruction is necessary as part of or in conjunction with any present or future flood control plan or project or if damaged by any cause. If the permittee does not comply, The Reclamation Board may remove the encroachment(s) at the permittee's expense.

EIGHTEEN: The permittee shall be responsible for repair of any damages to the Kaweah River Designated Floodway due to construction, operation, or maintenance of the proposed project.

NINETEEN: The permittee is responsible for all liability associated with construction, operation, and maintenance of the permitted facilities and shall defend and hold harmless the State of California, or any departments thereof, from any liability or claims of liability associated therewith.

TWENTY: If the project, or any portion thereof, is to be abandoned in the future, the permittee or successor shall abandon the project under direction of The Reclamation Board and Department of Water Resources, at the permittee's or successor's cost and expense.

TWENTY-ONE: Cleared trees and brush shall be completely burned or removed from the floodway, and downed trees or brush shall not remain in the floodway during the flood season from November 1 to July 15.

TWENTY-TWO: Stockpiled material, temporary buildings, or equipment shall not remain in the floodway during the flood season from November 1 to July 15.

TWENTY-THREE: The finished floor elevation of the proposed structure shall be a minimum of 2 feet above 906 feet, NGV Datum; or the proposed structure shall be securely anchored and floodproofed.

TWENTY-FOUR: If damage to the storage building exceeds 50 percent of its market value within a 10-year period, the storage building cannot be rebuilt or replaced without approval of The Reclamation Board. If the storage building is not repaired or replaced, the remaining portion must be completely removed from the floodway prior to the next flood season.

TWENTY-FIVE: The proposed storage building shall be properly anchored to prevent floatation into the floodway in the event of high water.

TWENTY-SIX: The proposed structure shall not be used for human habitation.

TWENTY-SEVEN: The permittee acknowledges that the proposed structure is located within the Kaweah River floodway and is subject to periodic flooding.

TWENTY-EIGHT: All debris generated by this project shall be disposed of outside the Kaweah River Designated Floodway.