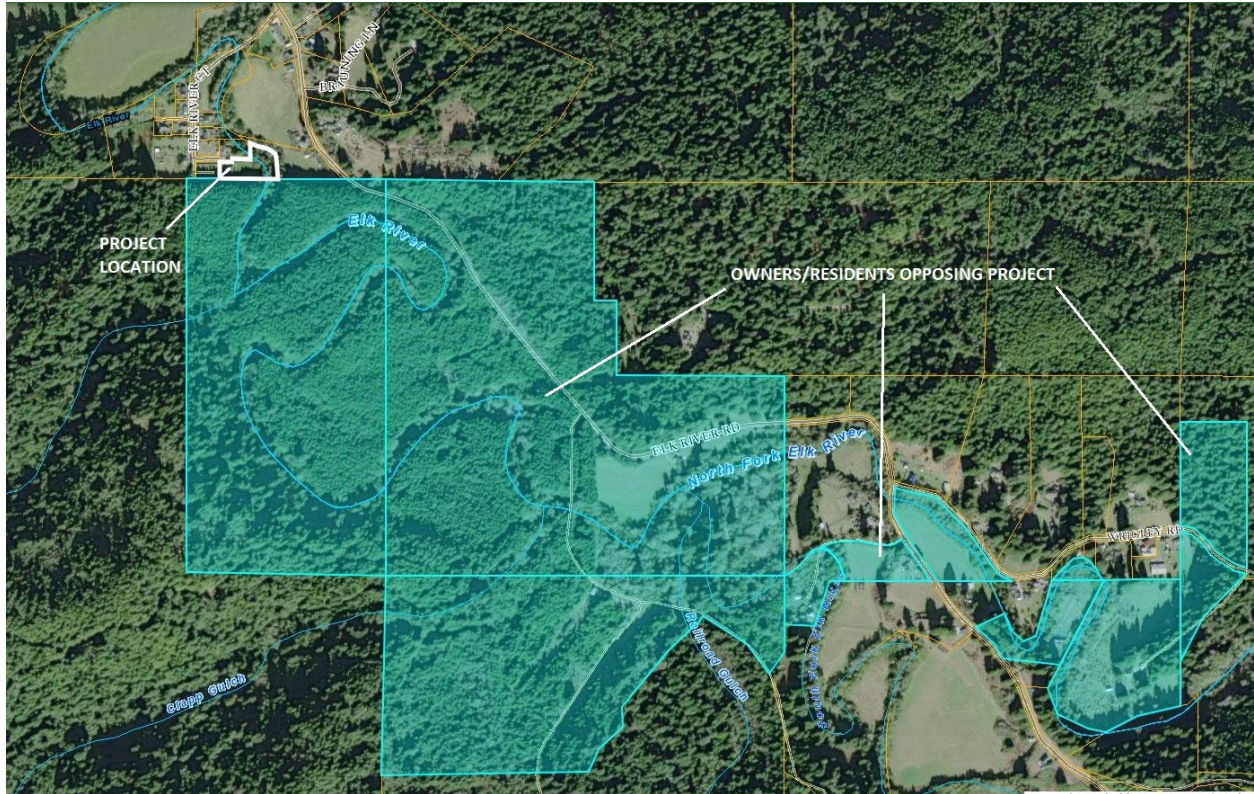


Attachment 5 – Public Comments received Opposing Project



From: Michael Jackson <mej95503@yahoo.com>

Sent: Monday, June 26, 2023 2:21 PM

To: Planning Clerk <planningclerk@co.humboldt.ca.us>

Cc: slazar@humboldt.ca.us

Subject: Nancy Young: Elk River Area, Record Number PLN-2022-17962 (filed 10/03/2022): (APN) 304-321-091 Date of hearing. 07/06/2023

I moved out here almost 25 years ago to live my life in the peace and quiet this "Private" country road possesses. I was not in favor of the unpermitted Air B&B operating at 7538 Elk River Ct. Many problems with traffic including but not limited to speeding became a major issue. Seemly, we able to resolve some of these issues in a neighborly manner, but I never felt comfortable with the whole idea of the Air B&B at the end of our "Private" country road. I did not bring this complaint against Nancy, but now that things are out in the open with it, I would like to say that I am totally against of the idea of a Bed and Breakfast or Air B&B operating at the far end of the "Private" country road located at 7538 Elk River Ct Eureka Ca. The host advertises online, "Enjoy the natural beauty, wildlife, and peaceful quiet of Elk River Cottage". As though all of this is Her's to share with the world. This why I moved out here almost 25 years ago, to Enjoy the natural beauty, wildlife, and peaceful quiet of "ELK RIVER COURT!". If she would have circulated a letter of her intention prior to buying this property, then she could have saved everyone from this headache. A Bed and Breakfast at the far end of this "Private" road is not an appropriate fit. I would also like to add that I do not appreciate her brow beating my wife into signing her petition for approval and her attempts at pressuring me into signing away my approval for this proposal. Or being blamed for this action and whether or not you will be able to continue living there. TO MUCH DRAMA! This letter was generated and written only in response to an unsolicited letter I received from the Humboldt County Planning Commission.

From: Michael Jackson <mej95503@yahoo.com>

Sent: Tuesday, June 27, 2023 9:50 AM

To: Planning Clerk <planningclerk@co.humboldt.ca.us>

Cc: Lazar, Steve <SLazar@co.humboldt.ca.us>

Subject: Re: Nancy Young: Elk River Area, Record Number PLN-2022-17962 (filed 10/03/2022): (APN) 304-321-091 Date of hearing. 07/06/2023

I would also like to add that there has been a significant increase in the amount of people (guests) walking and allowing their dogs to do their business along this "Private" country road, including in front of my property. Yes, it is true that the majority of them clean up solids, it is still an undesirable sight to see. My family walks along this area as well and there has been more the one occasion that I have had to use my shovel. Thank you for your time and allowing comments to be considered.

From: debbymoore7@gmail.com
To: [Planning Clerk](#)
Cc: debbymoore7@gmail.com
Subject: RE: Nancy Young Special Permit, PLN-2022-17962; June 1 Hearing
Date: Tuesday, May 30, 2023 5:00:42 PM

Caution: This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

Dear Director Ford,

I strongly oppose the issuance of a Special Permit to allow the Young Bed & Breakfast to operate. The following are my reasons for opposing the permit issuance:

- 1) The proposed bed and breakfast operation is located at 7538 Elk River Court, the end of a private road. Permitting a Bed and Breakfast in this location places an unfair burden on all the other property owners on Elk River Court for costly road maintenance due to the greatly increased auto traffic on the road. Who will pay for the additional road maintenance?
- 2) A home recently burned to the ground on Elk River Court because the fire truck was unable to cross the Elk River bridge, which could not safely hold the weight of the fire truck. 7538 Elk River Court is the home farthest from Elk River Road and farthest from the bridge, thus an accident waiting to happen. I implore you to take seriously the potential endangerment to the lives of these additional transient residents of the Elk River Court B&B. Please protect visitors to our county, as well as its permanent residents, according to our own safety and building codes.
- 3) Young Bed and Breakfast has been operating as a B&B without any authorization. Had they applied for a B&B license, surely their septic approval would have been more stringent and closely looked at. They are listed as 9 out of 10 on the FEMA flood zone website as having Extreme Flood Risk, close to neighbors and the river. Their property is 1.25 acres instead of the 5-acre county minimum requirement, which may have been workable for a private home. Is it prudent to allow a B&B in an Extreme flood zone to operate under the same septic rules as a home? Here in the county along Elk River, property owners know how to use less water to keep their septic systems working properly even under heavy rain conditions. Transient residents have no understanding about what it takes in terms of water conservation to keep a septic system working, and I don't think it can be understood from reading a notice left in their B&B room.

I am upset that the tone of the agenda for this Special Permit sounds like this is a done deal when many legitimate questions about serious issues regarding the operation of this B&B remain.

Thank you for the opportunity to express my concerns regarding the Nancy Young Special Permit Hearing.

Comment of Jesse Noell regarding Special Use Permit for APN 304-231-019-000 to establish and operate a Commercial Motel “B & B” in Elk River Court

- 1) Special Permit proposes to permit effectively demolishing one low income rental unit in order to create a high income tourist related business. The General Plan policy promotes facilitation of affordable housing opportunities for all income levels.



- 2) The Special Permit Policy that enables low income rental units to be converted to high income related businesses is a policy of the County that has potential to result in environmental injustice. The General Plan speaks to this issue: “Environmental justice is defined as the fair treatment of people of all races, cultures, and **incomes** with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and **policies**. The concept of environmental justice is incorporated into the general policies put forth in this chapter and is reflected in various policies throughout the Plan.

The issue is a civil rights matter, grounded in the Equal Protection Clause of the U. S. Constitution. The Fourteenth Amendment expressly provides that the states may not “deny to any person within [their] jurisdiction the equal protection of the laws.” Both U. S. and California law includes directives to consider this issue in local decision making. Recent California law recommends general plan provisions that specifically foster equitable distribution of new public services and facilities, avoidance of pollution in proximity to schools and residential areas, and promotion of expanding opportunities for transit-oriented development.

Part 1, Chapter 3. Governance Policy 3-5

Humboldt County General Plan Adopted October 23, 2017

Problems of environmental justice can manifest themselves through procedural inequities in the planning process as well as through geographic inequities that concentrate undesirable land uses in certain neighborhoods. Policies throughout all elements of the General Plan are designed to be supportive of environmental justice.”

- 3) Special Use Permit project proposal lacks evidence *how well the amount, timing, and distribution of low cost housing growth* in the Headwaters Neighborhood (mapped above as the red dot closest to the word Headwaters) **correlates** with either Humboldt County's or the Headwaters Neighborhood community's (HNC) **need for low income housing**; especially low income rental housing supportive of the agricultural character within the adjacent area. AirBnB listings identify 3 to 8 illegal units active over the past 5 years; 4 units comprising 8% of the HNC are no longer available for low cost rental and appear to be active STR (short term rentals) presently. According to Zoning related estimates, the Headwaters Neighborhood comprises 50 units or persons. Thus, the growth of illegal commercial short term rental units has dramatically altered the character of the HNC and decreased low income housing. The GIS coverage shows approximately 58 additional units could request Special Use Permits at any time, once this SUP

opens the flood gates.

- 4) The Special Use Permit is disorderly in that it does not “Promote and facilitate the creation of affordable housing opportunities to meet current and future demands **for all income levels**” as required by Principle 3 of the General Plan, nor does it ensure **citizen needs** nor preserve and enhance the **character and quality of life** as required by Principle 1 “Ensure that public policy is reflective of the needs of the citizenry of a democratic society as expressed by the citizens themselves,” and Principle 2) Preserve and enhance the diverse character of Humboldt County and the quality of life it offers. Instead it favors exploitation of stable community character and profit motives above citizen needs, democratic society, stable neighborhood values, privacy, and quality of life. According to the General Plan, “Quality of life is one of Humboldt County’s most important assets for economic development. “Quality of life” can relate to almost every aspect of our lives, from public safety to natural beauty.” Instead, the Special Use Permit ensures deep seated conflicts, health and safety threats, diminished quality of life, discrimination against those needing low income housing, and enables piecemeal growth inducing changes.
- 5) The Special Use Permit project proposal lacks evidence that the amount, timing, and distribution of growth correlates with the Headwaters Neighborhood community's need for anticipated road capacity and performance standards necessary to accommodate traffic and local or state fire fighting equipment and emergency services. Structure fire, vehicle fire and hay field fire incidents appear to have increased in the Headwaters Neighborhood in recent years, but actual increase is not disclosed or mitigated by the Special Permit. This issue was not addressed by the County in the Headwaters Deal EIS or EIR, or the 1984, 2014, or 2017 updates. Maybe it is addressed in the 5 or 6 year update due in 2022/2023. When a fire breaks out, many people can be trapped on this cul de sac road.
- 6) Headwaters Forest is closed at night, and tourism services are located 6 miles away; thus a B&B motel at HNC *is likely to unnecessarily increase carbon emissions* which will accelerate the sea level rise that threatens much of the Humboldt Bay area. This area lacks public transportation, there are no bicycle lanes, and industrial logging trucks commonly utilize portions of both lanes of this narrow, winding, mostly shoulder-less, substandard and poorly maintained County Road.

Sincerely, Jesse Noell

4.1.1 Purpose

The Land Use Element provides for the distribution, location and extent of uses of land for housing, business, industry, natural resources, open space, recreation, and other uses. The Element guides patterns of development for the County, providing a long-range context for decisions made regarding zoning, subdivision, and public works.

These land use policies guide growth and the development and use of land through 2040. The policies of this Plan represent a legislated balance between the individual rights of property owners and the health, safety, and welfare needs of the community.

4.1.2 Relationship to Other Elements

Statutory authority for a general plan in California is expressed in Title 7, Division 1 of the Government Code. Section 65302(a) of the code establishes the requirements for the Land Use Element. This Land Use Element guides decision makers, planners, and the general public in fulfilling the ultimate pattern and character of development within the unincorporated areas of the County. It is also consistent with, and balances the goals and objectives of, the other elements of the General Plan. The Land Use Element is most directly related to the Conservation and Open Space, Housing, and Circulation elements. For example, the amount, distribution, and timing of growth expressed within the Land Use Element must correlate with the anticipated road capacity and performance standards established in the Circulation Element. Similarly, the location and density of uses prescribed in this element are integrally linked to policies for the protection of resources included in the Conservation and Open Space Elements. This element also provides opportunities for adequate land use in order to support economic growth and regional housing needs.

4.1.3 Background

The general goals, objectives, and policies apply throughout the County and are the basis for the more specific area policies, programs, and land use map designations. The land use maps and text must be used together in order to fully understand the policies applicable to any particular situation. The land use maps have been prepared using the [View/61996/Chapter-4-Land-Use-Element-PDF" in a new tab](#) as well as those of previously adopted plans.



Part 4—Health and Safety. Part 4 includes policies and programs to protect people, property, and the environment from risks associated with seismic, geologic, noise, flood, air quality, and wildfire hazards. This part of the Plan contains the state required Noise and Safety elements, as well as the Air Quality Element.

Space elements are large elements with multiple sections and, in the case of Conservation and Open Space, consolidated elements. The complexity of these chapters warranted additional explanation and they are the only elements containing this section.

Purpose: Presents the purpose of the chapter.

Relationship to Other Elements: Explains the chapter's relationship to other elements of the Plan.

Background: Discusses key findings from the technical background studies and other research supporting the proposed policy direction. Depending on the complexity of the particular topic, this section may be broken into subsections.

Goals and Policies: Presents goals and policies to set direction and guide decisions associated with the topic.

Standards: Identifies the standards that will be used to apply policies to a given situation.

Implementation Measures: Identifies measures that will be taken to implement the Plan.

2.5 Key Terms

As suggested above, the core of this Plan focuses on goals, policies, standards, and implementation measures. Because of the frequency of use and relative importance in the Plan, these terms are explained briefly below.

Goal: “A goal is a general expression of community values and, therefore, may be abstract in nature” (2003 General Plan Guidelines, Governor’s Office of Planning and Research). Goals should be expressed as ends, not action; they set the direction towards an ideal future. Goals are not necessarily quantifiable or time dependent.

Policy: A policy is a specific statement that must be followed when making decisions. It indicates an unambiguous commitment of the County to a particular course of action designed to achieve a specific goal.

The policies contained in the Plan are expressed in terms of “shall” or “should”. There is an important distinction between these two terms. As used in the Plan, “shall” indicates an unequivocal commitment, while “should” is advisory, in that it, like “may” is not mandatory, but “should” indicates a policy preference of the County.

Standard: A standard is a specific, often quantified rule or measure that helps define how a policy will be enacted. Standards define the abstract terms of goals and policies with concrete specifications.

Implementation Measure: An implementation measure is an action, procedure, program, plan, or technique used to carry out General Plan policy.

2.6 Maps

The General Plan includes official and background maps. Official maps show the geographic application of the Plan policies, while background maps (referenced as figures in the main text) provide support information. The official maps consist of the following map sets:

Land Use. These maps show planned land uses using General Plan land use designations. These maps do not always reflect existing land use, but rather the planned use. They indicate the kind and intensity of planned land uses, such as rural residential, 5 to 20 acres per dwelling unit.

interests and 28% of the County is in public ownership. This section of the plan provides direction for public participation in the planning process.

It is an essential function of a democratic society that public policy reflects the needs of the citizenry as expressed by the citizens themselves. Citizens will participate when they feel their participation will have an effect. But the large size of the County can make it difficult for citizen involvement. Plus, there are conflicting land uses and interests within the County which points to the need for creative solutions and a forum for resolution. The following goals and policies seek to provide the opportunities needed to overcome these challenges.

2.9 Goals and Policies

- Living in a Networked World – Telecommunications (December 2007)
- Water Resources Technical Report (November 2007)
- Community Infrastructure and Services Technical Report (July 2008)
- Related Studies:
 - Humboldt County Community Wildfire Protection Plan (May 2013)
 - Harbor Revitalization Plan and Rail Study
 - Airport Master Plan
 - Prosperity! Update
 - District Sphere Reports (LAFCO)

impacts will be mitigated. A range of alternatives to the Plan are also discussed in the EIR.

Management Plan, adopted March 87, 1994 (Resolution 94-22)

The resolution adopting this Plan would clearly indicate that the Humboldt County Framework Plan and all of the other Plans and Elements listed above are superseded. Adoption of this Plan would also incorporate all Community Plan policies, except those contained in the Avenue of the Giants, Eureka, and McKinleyville Community Plans, into a single document, Appendix C, Community Area Plans Extract. As a result, the following Community Plans are amended and consolidated into this Plan, and this Plan is considered to be the Community Plan for those communities until such time that the Community Plans are updated:

- Jacoby Creek Community Plan (1982)
- Freshwater Community Plan (1985)
- Fortuna Community Plan (1985)
- Willow Creek Community Plan (1986)
- Hydesville-Carlotta Community Plan (1986)
- Garberville-Benbow-Redway-Alderpoint Community Plan (1987)
- Orick Community Plan (1985)

The following types of modifications to Community Plans were made in the process of consolidating these Community Plans into the General Plan:

- Each Community Plan policy was given a new unique policy number consistent with this Plan, and policies were grouped according to Community Planning Area and further grouped by topic area consistent with the organization of the proposed Plan (e.g., Circulation, Biological Resources, Hazards, etc.)
- Policies with obsolete references to the 1984 Framework Plan, such as references to land use designations, have been revised to reflect the appropriate land use designations and incorporated into Appendix C in the manner described above.

Element Organization and Combined Element Organization: Provides additional guidance about chapter organization. The Land Use and Conservation and Open Space elements are large elements with multiple sections and, in the case of Conservation and Open Space, consolidated elements. The complexity of these chapters warranted additional explanation and they are the only elements containing this section.

Purpose: Presents the purpose of the chapter.

Relationship to Other Elements: Explains the chapter's relationship to other elements of the Plan.

Background: Discusses key findings from the technical background studies and other research supporting the proposed policy direction. Depending on the complexity of the particular topic, this section may be broken into subsections.

From: [kaileigh Vincent-Welling](#)
To: [Planning Clerk](#)
Subject: RE: Young Bed & Breakfast Special Permit, PLN-2022-17962; June 1 Hearing
Date: Tuesday, May 30, 2023 6:34:37 PM

Caution: This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

Dear Director Ford,

I would like to express my concerns and strong opposition to the Special Permit issued for the Young Bed & Breakfast to operate on Elk River Court. I am a resident of the Elk River community, and residents who live along this severely impaired river have been having to live with the consequences of historic unsustainable logging now for decades without prioritization of restoration actually being carried out. It is difficult to put the fear and risks this river continuously poses to residents in the eyes of tourists, who have the privilege of experiencing this rural area with the same masks folks are able to wear while walking on Headwaters Trail on a sunny day. The *unnatural* and *preventable* flooding that happens each winter and spring, the degradation of water quality, the catastrophic losses residents have to live with year after year cannot be seen by tourists, who add stress to the fragile river, traffic to the deficient rural roads, and online reviews that boast falsities about what it is like out here in rural Humboldt. This is all without understanding the unfixed and unprioritized issues us residents have to live with each year.

With that brief background being said, please find my main points below as to why I strongly oppose of this Special Permit:

1) Public safety and access- 7538 Elk River Court is located at the end of a dead-end road across a bridge that cannot hold the weight of a fire truck, meaning medical personnel could not safely reach this short-term rental should it be needed. With more people coming in and out of this area, it should seem likely that the risks of an accident happening would increase. How is this being considered, and will the County upgrade the bridge to allow for better access if a business is going to be operating on this cold-de-sac?

Further on the issue of access- this B&B was advertising the neighboring woods as a feature of their guest's stay, encouraging trespassing private property. Why was the Young's provided the reward of a Special Permit when they've been operating this business illegally and immorally in the regard to knowingly encouraging this trespassing? Why should these activities be rewarded?

2) The roads out here along Elk River already need maintenance, and adding traffic will only add to this problem. For instance, just this winter/ spring, the roads flooded to the point of trapping residents in their homes multiple times. It seems as if road maintenance and upgrades should be deeply considered and prioritized for folks that actually live in this community full-time before granting people the right to open B&Bs, which adds more traffic, leading to only worsen road conditions. It doesn't feel like the safety of residents is being prioritized here.

3) With Cal Poly Humboldt increasing enrollment, the housing crisis in Humboldt appears to be the worse than ever before, so why is the County spending additional effort to allow for more short-term rentals, especially those operating *illegally*, when residents- students, traveling medical personnel, professors, etc. need housing? This seems non-supportive of this

dire housing need within the Humboldt community. Is local tourism more important than essential services (such as medical) and supporting our growing Humboldt community?

In conclusion, it is distressing to feel as though this fragile and impaired river ecosystem, which once held so much life and precious fish passage and good quality water supply to residents, and our community is not being considered enough by the County in making this decision. That the impact to the Elk River community, who need and rely on one another year after year as the roads flood and trap us in, as the water creeps closer to our homes as the bottom of the river rises with sediment due to logging, isn't being considered enough by the County. Yes, maybe it's only one B&B approval right now, but this could open the gates for more- some of which have been already operating illegally. We need a tight-knit community out here, especially as conditions worsen in the river as logging continues on, posing severe safety concerns for us.

Please consider the implications of granting this Special Permit and the possible ripple effects it may have on our community; it means much more than it might seem to those not having to hold the full weight of the decision.

Thank you,
Kaileigh

Humboldt County Planning Dept.

Comments on Nancy Young BnB PLN-2022-17962 at 7538 Elk River Court June 1 Hearing

Dear Mr Ford,

The so called BnB at 7538 Elk River Court is a very bad fit for the larger Elk River area especially the our upper Elk River community. The whole Elk River Court subdivision is an anomaly for the larger agricultural designated area surrounding it. It is a substandard parcel that came into existence before the 5 acre minimum lot size was established so was grandfathered in to acceptance. To now take this substandard lot whose owner illegally operated BnB and give them a permit to operate is contrary to the County Plan as well as good judgement. First in line always gets preferential advantages over others in the area who want to do the same thing. At this point not everyone can have a BnB. Or can they?

I am sure the owner is nice(I have spoken with her over the phone) and I realize she went around and got her close neighbors to sign a support letter based on her needs for financial support. I understand that(I have had to give up a minimum of \$40,000 a year because the State and the County have allowed Elk River to fill with sediment leading to increased flooding height and frequency destroying my historical property use.) But that does not mean she should get a permit to operate a hither to illegal business.

I own the property directly behind 7538 Elk River Court and she has already shown disrespect for my agricultural property, a plantation forest. At first she had pictures on her site on the AirBnB webpage which she removed but only after I asked her to. She also has allowed her guests to walk in my forest which is most distressing. Yes, the County can stipulate residents and guests stay off my property but who monitors and regulates that? I have to, adding to my burden. With short term/overnight stay there is no opportunity to face people directly and establish a personal connection. Personal connection is extremely important in a rural community...it is the very basis of community.

Renting a bedroom is more of a commercial activity best situated in an arena where public protection is more available than the rural /ag/timber zoned upper Elk River area where this BnB is a tag on to a substandard parcel in a unique tiny subdivision. Adding motel like overnight stays will add to our already stressed crime threats. As in all arenas community awareness is paramount to safety and security. Fire threat is another burden increased by short term motel-like bedroom rental. There was a recent structure fire across the street from 7538 Elk Rvr. Ct. where the fire trucks could not access the area with vehicles, only long hoses. This location is in the very back of this grandfathered subdivision of 8-9 dwellings. My forest is directly behind the outer cottage building and would be even more threatened by increased unaware short term guests. It is just a matter of numbers. County services are in short supply; we simply do not have the funds to adequately police and support emergency services. Short tern stays add to that burden both to County and most especially to the surrounding land owners. There is good reason why we are mostly Ag Exclusive, Ag general zoning in this area.

This subdivision is in the 1987 FEMA Flood arena(though its existence predates the flood map.) The logging of the last 25-30 years has increased the 100 year flood height by 5-8 feet over that original 1987 flood height.(1% Annual Chance Flood Elevation Estimates for Lower Elk River, Humboldt County; Northern Hydrology & Engineering, 9-29-2020.) The water table is also raised so not only are flood risks greatly increased but functionality of the septic system comes into question. Conditions have changed since the early 70's when the system was permitted. The adequacy of the septic system is questionable to me as I remember when Edith Johnson (original and long time owner) lived there the system did not have a leach line only a leach pit which does not provide as high a level of distribution/filtering of septic effluent. With the water serving this location being from an onsite well which came into existence before County scrutiny was required there could be a more dangerous situation than originally existed. A more than perfunctory analysis should be required where the public safety is concerned. Most of the time in the past this property supported 1-2 people so using it now as a short term stay with 4 added guests does add to the human burden. The cottage was used as a storage unit not a space with kitchen, bedroom and bathroom. It may not be strictly growth enhancing because of the number of bedrooms in the big house that are projected to be used for short term stay. When only looked at with a check box mentality of doing what could be allowed without thinking about actual changed circumstances both environmental and dwelling oriented public safety could be short changed, especially when you consider this is a substandard parcel in an anomalous subdivision next to large agricultural parcels.

This Bedroom Rental facility certainly changes the character of the neighborhood. As stated earlier it is surrounded by mostly large agricultural land, timber, dairy, hay fields. I will be logging directly behind this parcel in hopes of addressing both increased safety and enhancing the larger Elk River Recovery Project as well as turning the plantation forest into a real Redwood forest. These multiple goals will require repeat logging in the area. I would hope the owner would realize that the meaning of TPZ land is loud noise and ugly views which ultimately will lead to a safer and better environment for everyone.

The cottage rental is really a separate unit with kitchen and bathroom, thus could be rented out long term giving the owner her desired revenue as well as supplying a much needed housing unit. Renting this out as a BnB is definitely inconsistent with the County Plan Housing unit. Humboldt County has a need for low income, seasonal housing for students, visiting nurses and other temporary workers. The County has known since 2016 of the need for guidelines for so called vacation, short term, BnB rental facilities. Until more open vetted guidelines are established no BnB units should be permitted especially not this one on a substandard parcel on and surrounded by prime ag soils. Permitting this one opens the door for others. There are two others operating out here that we know of(yes we have and will again complain.) Our experience does not show that the County is proactive or even responsible when it comes to BnB's. When first covered by the Cottage Industry provision it was difficult to have a facility of this type now with the advantages of the internet and the AirBnB website it is very easy. When people perceive a seemingly easy avenue to make money(think cannabis in the early days) many jump on the band wagon and with no really vetted ordinance too much is left up to the particular planner. Even with vetted rules we have seen the County do an inadequate job of enforcing their own rules(illegal cannabis grow and insulation business allowed.) Our concerns are immediately on high alert because we know the County does not have the resources to adequately address each situation. It often boils down to short sighted paper analysis or what I call a check box review. That is he kind of analysis that lead to Elk River having become so sediment impaired from logging. (We have been dealing with that for over 25 years to no real avail: logging prevails and conditions continue get worse for the residents.) Some of us long time residents are thinking caring knowledgeable people. We have learned the hard way to really pay attention an think about the repercussions of our and others actions. I am not sure new people in the upper Valley are aware of their own situation. We would expect County Planning to do more than a perfunctory investigation as to how they can permit it but more into should they permit and what does this ultimately lead to. Too much is dependant on the individual planner's interpretation of circumstances in the present process. It is obvious she has played to the heart strings of her close subdivision neighbors by drawing up a letter of support for them to sign. And yes, we all want to help our neighbor that is to be commended but do not do it in such a way that hurts the larger community and only benefits the one person getting the permit. If the owner needs revenue there are ways at her disposal other than a so called BnB. She would not need a special permit to do long term rental but I think the public health issue needs to be thoroughly vetted; maybe they are fine but lets make sure.

I oppose this Special Permit as it does not conform to the County Land Use in our area, is in direct opposition to the Housing unit goals; it opens the door wide for others to say me too without a vetted Ordinance in place so all know the requirements; it burdens the larger surrounding landowners with increased fire, security and emergency risks while benefiting only one person, the homeowner. It is truly alarming to me.

Kristi Wrigley
2550 Wrigley Road
Eureka, CA. 95503

TO: Humboldt County Planning Department
attn: Steve Lazar
FROM: Stephanie Bennett, resident of Upper Elk River Community
RE: Special permit for short term rental/motel business on Elk River Court
DATE: 5/29/23

The bed and breakfast business on Elk River Court does not support the goals of the General Plan and is not consistent with the character of this community. This community is plagued with multiple health and safety concerns: polluted domestic water from Elk River, fragile septic systems, no cell service, no internet without electricity, frequent power outages, no street lights, private bridges that may not be certified for emergency services, and no fire hydrants. This is not a community to support lodging visitors without incurring great liability for the guests' health and safety, the neighbors, and further impacting this severely impaired watershed.

This county has no coherent process for approving of short term rentals. Even health and safety issues are left unaddressed as there is no assessment by Environmental Health to ensure that septic systems are properly functioning or that domestic water supplies are safe. This bed and breakfast does not have to provide its guests with the same standards of health and safety as motels do; in fact, it doesn't have to ensure that any standards at all are met.

Short term rentals may be appropriate in some rural areas where accommodation choices are slim, but this is not the case here. There are hundreds of motels, hotels, and private home accommodations just 5 miles away in Eureka and other neighboring towns. These legal and appropriate lodging options are already close to business services, emergency services, entertainment, and they all are subject to stringent health and safety protections for the tourists. Permitting lodging options in unprepared, environmentally insecure neighborhoods like ours with fragile water supplies, is inconsistent with the General Plan and is not in the public interest.

This Elk River Court residence doesn't have an approved septic system or domestic water supply, and the private bridge that must be crossed to reach it has not been certified by the Fire Departments. Is there a dedicated water tank for fire on this property since 20-30 minutes may elapse before CalFire or Humboldt Fire can get there? This lack of access to emergency services should be an immediate denial of any petition to invite more people on this property. This approval for a short term rental business is premature and dangerous to our community.

The character of our community had never been openly defined by planner Steve Lazar yet he is empowered to determine whether this new use will be compatible with this unknown, unstated character of our community. He doesn't know where our domestic water supply intakes are or whether our homes are up to code. He never asked affected neighbors about their experiences here, especially those of us who are already enduring short term rental impacts. Health and safety issues abound here in Elk River, but County Planning wants to avoid that inconvenient truth. Without assurances of health and safety protocols or clear guidelines for approval of a special permit, approval of this business will damage our community culture, damage our fragile infrastructure, and must be considered to be arbitrary and capricious.

This Upper Elk River community has no public services to offer tourists; not even basic cell service or internet access or street lights. There is only one public destination: the small Headwaters Park which is only open during daylight hours so tourists have no business here after dark. All other lands are private. Any non-resident here after dark will find great hardship in navigating these roads without streetlights

or cell service creating more dangerous conditions for us local humans and the wildlife. All public services (food, lodging, entertainment, supplies) are available 5 miles back down the road in Eureka or other towns.

Furthermore, creating lodging where only private property exists just encourages trespass and nuisance as many of us locals already experience. These nuisances remain unabated as Humboldt County now contemplates adding yet another nuisance-producing activity here. We live near a neighbor who has been operating a lodging business (airbnb) since 2018 without permits and with numerous notices of code violations. The "guests" were walking with their dogs in our water supply because they didn't understand how we locals really live and their hosts didn't inform them: Elk River is fragile, impaired, and yet still must supply all the downstream residents with their source of domestic water. As a neighborhood we respect the common uses of this river but tourists are here only to exploit what we have, not protect it. Providing recreational opportunities for tourists in Elk River is not in the public interest, nor this community's interest, when we must pump our home's water from the very river they want to recreate in.

The appeal of short term rentals is the ability of tourists to "live like a local" as is Airbnb's slogan. These tourists want to gain access to back regions, not yet commercialized, so they can enjoy the amenities not available to anyone but the local residents. But while in our community, tourists don't really want to live like us locals; they just want to experience the best of what our community offers with none of the hassles. Tourists can pay a few hundred dollars to enjoy our community; it costs us residents many hundreds of thousands just to live here, enjoyable or not. This short term lodging business only benefits the one host operating it while the rest of the neighbors pay the real price.

A sampling of the reviews from a neighbor's illegal airbnb "perfect for quiet getaway; extra quiet and peaceful; loved how secluded it felt; so peaceful, so beautiful, so tranquil."

Well yes; those attributes do describe the character of our Upper Elk River community. And those attributes exist precisely because we long term residents nurture and protect them just as we protect the river, our neighborhood's water supply. Government certainly isn't supporting our protections. It's we local residents who maintain our community's "commons:" beauty, peace, tranquility, and privacy by interacting with and respecting our neighbors. We never agreed to make a profit off of the commons, the values and resources we all share because we reside here, but some neighbors don't care about agreements.

We only discovered our neighbor's illegal short term rentals when they placed 5 glamping tents in the riparian zone next to our home. Guests had to drive across a dry pasture to reach their lodging, creating a fire hazard. No fire extinguishers were provided while the guests enjoyed their private campfires. There is no dedicated water tank for fire at this site, threatening all of us neighbors as the guests pretend to "live like locals." The glamping guests complained to their host that our farm dogs' barking disturbed their sleep. So the host (our neighbor) threatened and harassed us for months. They demanded that we transform the way we farm so as not to annoy these guests. That outcome is precisely what the General Plan intends to avoid: forcing farmers to adjust to non-farming uses in our agricultural communities resulting in a net loss of working farms and an increase in community conflict.

With no government enforcement of these short term rentals we neighbors have to take on the burden of dealing with these neighborhood conflicts which is both damaging to our community's social fabric and to government's interest in effective and fair policies. Ironically, Humboldt County claims that it

places a priority on abatement of violations that result in agricultural land conversion, loss of productivity, or conflicts with neighboring agricultural operations. In fact, our airbnb neighbor actually stated that operating a short term rental business in this community was not illegal unless someone complained! By that logic, they are indeed illegal, yet they're still raking in money and paying their transient occupancy tax on their illegal lodging business. So perhaps, they are right: Humboldt County really doesn't care about permits or health and safety, as long as they can collect the TOT.

Until Humboldt County adopts a clear, coherent, and enforceable policy regarding operation of short term rentals in rural areas like ours, no special permits to operate or variances should be approved.

Airbnb and other short term lodging platforms are escalating world wide. Neighborhood problems are epic and many cities have adopted ordinances to deal with the horror stories of these problems. Does Humboldt County really believe that the US and global economies are so robust that wealthy tourists will continue to flock to our community where locals make \$12/hour, while they can pay \$500 for 2 nights' stay? This short term rental industry is as unsustainable as the cannabis industry and a heck of a lot less regulated.

This industry creates speculation and illicit economies as already evidenced here in our Upper Elk River community. The operators of these rentals experience all the benefits while externalizing the costs of doing business onto their neighbors. When the short term rental market collapses as is predicted, these operators will also cut and run, just as the pot growers did. Only the long term residents who actually value living here, will remain.

It's a reality that one's property rights do not guarantee that every use one desires is appropriate for that particular property particularly if this use damages the commons. Upper Elk River is special precisely because so few people have access here, yet no analysis was conducted of this community and how impacted it will be from this infusion of tourists. Humboldt County has failed to provide any evidence that this business is appropriate much less compatible with the character of our community. Humboldt County has yet to provide a clear, coherent regulatory process for determining where short term rentals are appropriate. This disorderly government process leads to discrimination, violations, damages, and great expense for all parties.

Approval of this bed and breakfast lodging establishment in a community with a dangerous water supply, damaged septic systems, inadequate access for emergency support, no public lands open at night, and no public services whatsoever is irrational and inappropriate and will be costly. Nothing about this permit is consistent with the General Plan goals or the character of our community.

This permit at Elk River Court must be denied for multiple health and safety reasons and the fact that such approval is inconsistent with the General Plan. Short term rentals belong where the infrastructure already exists to support them. Our neighbors who desire to make money converting our farmlands to tourist rentals must find a more compatible use for their rural properties. Or they can sell out to a new owner who actually values living here without impacting their neighbors and this severely impaired watershed.

From: [stuart.lane](#)
To: [Planning Clerk](#)
Subject: Young Bed & Breakfast Special Permit, PLN-2022-17962; June 1 Hearing
Date: Tuesday, May 30, 2023 2:53:37 PM

Caution: This email was sent from an EXTERNAL source. Please take care when clicking links or opening attachments.

John Ford
Director and Zoning Administrator
Planning Department
County of Humboldt
3015 H Street
Eureka, CA 95501

[VIA E-MAIL: Planningclerk@co.humboldt.ca.us](mailto:Planningclerk@co.humboldt.ca.us)

RE: Young Bed & Breakfast Special Permit, PLN-2022-17962; June 1 Hearing

Dear Director Ford:

I submit these comments and concerns against granting the Young B & B Special Permit because the proposed B&B doesn't follow the intentions of the Humboldt County General Plan, increases the public safety and health risks, and detracts from our Agricultural "farmy" residential neighborhood.

Affordable Housing:

The proposed B&B would remove another affordable housing unit, turning it into a vacation rental. I believe that this is against the goals of the Humboldt County General Plan Housing Element. Our Elk River neighborhood is already lacking affordable housing, and conversion to short term rentals exacerbates the situation. I recently talked with a young man whose parents were forced out of a Elk River Road low cost rental, and could not find anything nearby. I own multiple rental houses, and do just fine getting regular, long term (over 30 days) rent. I pay a rental tax to the County (not Humboldt County) for each unit.

Neighborhood Safety:

The proposed B&B would be put the public, i.e. B&B guests and neighbors, to an increased fire danger, as the FD will not drive across the Elk River Court wooden bridge. Non-local users might not understand the fire risk, or safety risk, as they would not know that about the relative lack of emergency services. The house right next door to the proposed B&B burnt to the ground last year because of the FD access problem, as the firefighters had to walk in dragging a smaller hose than normal. B&B guests might have trouble calling 911 as cell service is spotty, and somewhat dependent upon the chosen cell service carrier. At our house, if I stand in one spot, about a 100' from the house, I can sometimes get cell service with Verizon, but not with any other provider.

The proposed B&B property is entirely within the FEMA 100 year flood zone (FIRM MAP 1025G). The sedimentation of Elk River makes the flooding worse, as all who live out here know, and we have all experienced the flooding. This is a concern due to the fact that the water supply is a well on the same small parcel (1.25 acres) as the septic system. Although the lot size might be acceptable per code, in this specific case, I suspect it could a problem, at least

seasonally, leading to well water contamination. If the septic drain field fails due to increased use, the effluent may effect the immediate neighbors Elk River Court, and the residences downstream. I have personally seen a neighborhood comprised of 1 and 2 acre lots with septic systems and wells on each lot dealing with well contamination. The site plan does not show the water well location or leach field location (only the tank location is shown), nor does it show any neighboring wells or septic systems that might be too close. Although the septic system was adequate in 1965, today's standards require more leach field capacity, generally each kitchen also adds to the linear footage requirement, a calculation that wasn't considered in prior decades, and should be considered even for the reduced number of room rentals.

Neighborhood Compatibility:

Having read all of the B&B reviews (on all the local B&B's), it is clear that Nancy Young was advertising the adjacent private Redwood Plantation as a "perk", with implied permission for guests to use it, and the adjacent portions of the river, also private property, not under Nancy Young's control, and without permission from the property owner.

The Staff includes a provision for the revocation of the permit if needed. Although this sounds like a good thing for the neighbors, to me it sounds like a duplicitous conciliatory gesture to the neighborhood, as in so far as all SP's can be revoked for cause, and specifically calling it out does not change anything in regard to enforcement or intention to enforce any violations to the point of SP revocation.

I also see that the site plan calls out nearby shared driveways as private, but does not call out Elk River Court as private. It is important that reviewers and the interested public know that it is a private road and private bridge, and that the additional traffic generated by guests will increase the required road maintenance and future bridge replacement costs to the other owners, and yet those other owners will not benefit financially, only the applicant.

Staff Report:

I find the Staff Report's explanation of COA #7 troubling. The Executive Summary states that COA #7 deals with septic system capacity and water supply. Then I read that the applicant has "volunteered" to reduce the operation to 2 bedrooms. I would prefer to see that Planning Staff *require* this reduction to make it clear that any approval only for the 2 bedrooms (4 persons), as the way it is written implies that expansion of the SP is simply a matter of improving the water and wastewater capacity. Allowing the applicant to increase the size from 2 bedrooms to any larger use also increases the potential damage and disruption to the neighborhood, and thus needs a full SP review, again.

Condition of Approval #5 states the "owner *or operator* of the Bed & Breakfast must reside on the premises". I believe this violates County rules, i.e. "The dwelling on the site shall be occupied by the owner of the cottage industry". My understanding of the County rules in regards to SP's is that a SP cannot supersede the "owner occupied" requirement.

It is stated by the owner that non-resident family members would sometimes operate the B&B. The idea that the owner can have other people act in their stead, who do not live there, should not be allowed, as those other people could soon become the permanent operator. This will set an unacceptable precedent of an absentee (Special Permit) B&B owner.

The proposed Young B&B Special Permit is not in the best interest of the neighborhood, nor in the interest of public health and safety for those who live along the Elk River. It may

further damage the fragile Elk River watershed. The proposed B&B Special Permit is not needed, Nancy Young can rent out the cottage via a "normal" lease to generate income. Please deny the Young Bed and Breakfast Special Permit.

Respectfully,

Stuart Lane
Elk River Road resident.

May 30, 2023

John Ford
Director and Zoning Administrator
Planning Department
County of Humboldt
3015 H Street
Eureka, CA 95501

VIA E-MAIL: Planningclerk@co.humboldt.ca.us

RE: Young Bed & Breakfast Special Permit, PLN-2022-17962; June 1 Hearing

Dear Director Ford:

I submit these comments in strong opposition to granting the above-referenced Special Permit because the proposed Bed and Breakfast (B&B) is contrary to the goals of the Humboldt County General Plan, is contrary to Humboldt County Code and California housing policy goals, is a precedent-setting inequity, is an increased burden on the 303(d) sediment-impaired Elk River, is incompatible with our rural residential neighborhood, and represents an increased public health and safety risk.

Housing

The proposed B&B would decrease the availability of affordable housing by turning what could be a long-term residential rental unit into a vacation rental. I note that County has been aware of the problems that B&Bs, vacation rentals, and other short term rentals present with regard to the General Plan Housing Element since at least early 2016 because the Planning and Building Department referenced such problems in its February 2016 Vacation Home Rental Zone Reclassification Petition (Case Number ZRP-15-003). That petition specifically states Secondary Dwelling Units “represent affordable housing opportunities for Humboldt County residents and are part of the County’s Housing Inventory.” County’s ADU website (humboldtadu.org) plainly states: “ADUs often provide homes for the local workforce and families who serve essential roles in the county. Increasingly, these community groups are finding it difficult to find suitable and affordable housing. With the lack of available affordable housing, building and renting an ADU is truly considered to be a community service.” So if putting an ADU into the rental market is in the public interest, it stands to reason that taking an ADU out of the rental market is against the public interest. Should the Young B&B Special Permit be approved, Humboldt County will be setting a precedent that incentivizes the transformation of what would otherwise be available Housing Inventory into vacation rentals in direct opposition to the goals of the Humboldt County General Plan Housing Element and California’s state-level housing policy goals. Because the Young B&B Special Permit fails to achieve HCC Required Finding 312-17.1.1, it cannot be approved.

Allowing what is called the “cottage” in the Special Permit application materials to be used as part of a Bed and Breakfast Establishment would also be in direct contravention of HCC 314-69.05.3.4, which states that Accessory Dwelling Units “shall not be rented for periods of thirty (30) days or less.” If there is any doubt about the “cottage” being an ADU, please see enclosed screenshots of the AirBnB webpage for the Young property. Humboldt County cannot approve an ADU for short-term rental in contravention of its own Code.

Health and Safety

The proposed B&B would be detrimental to the public health, safety, and welfare because it would be located beyond a bridge that the fire department will not cross. Adding to the danger is the fact that cellular phone service in the area is generally very poor. Most staying at a B&B in Elk River Court would

likely only have a cell phone for communication, and in an emergency, it would do them no good. Services and infrastructure in Elk River are lacking, making it contrary to the public interest to allow a B&B to operate in Elk River Court.

Further detriment to the public health, safety and welfare due to the proposed B&B come from the higher burden on, and greater threatened harm to, the already deeply impaired Elk River. Numerous residents rely on Elk River for domestic water and it has historically been an important watercourse for threatened salmon and steelhead populations. Further, given the increase in Base Flood Elevation that has occurred in Elk River (see enclosed Northern Hydrology Technical Memorandum), adding vehicular and pedestrian traffic through the approval of the Young B&B Special Permit will also expose a greater number of non-residents, who have less experience with flooding than long-term habitants of Elk River, to increased flood hazard.

Equity and Compatibility

The proposed Special Permit would privilege Nancy Young to operate an ADU as a short-term rental above others who seek to operate a legally sound B&B at a later date. If others in Elk River seek to operate a B&B in conformance with HCC, they would be in direct competition with someone given a less-than-legal leg up. Thus the proposed Special Permit does not promote equity.

The proposed B&B would also violate HCC Required Finding 312-17.1.4 because it would be materially injurious to properties in the vicinity. Numerous reviews of the Young B&B on the website [airbnb.com](https://www.airbnb.com) mention how enjoyable the neighboring redwood forest is (see enclosed screenshots). This represents *prima facie* evidence of trespassing. Such trespassing brings non-local B&B guests into contact with a Timber Production Zone, which threatens to result in serious injury to any trespassing guests and timber operators, which could in turn become a huge cost for neighboring timberland owners. (See enclosed screenshot of aerial showing extreme proximity to timberland.)

With further regard to trespassing: When Nancy Young was operating her B&B illegally, she advertised the neighboring redwood forest as an enhancing feature of her short term rental. Because Nancy Young does not own the redwood forest next to her property, she was encouraging trespass for purposes of her own financial benefit. Does Humboldt County want to set an example of rewarding illegal behavior? How would granting this Special Permit be fair and equitable to those who will not to operate illegally and choose to go through the proper channels first?

Staff Report and Conditions of Approval

The Staff Report notes that given past unpermitted operation of the Young B&B, the inclusion of a provision foreshadowing the revocation of the permit is warranted. But inherent in the granting of any kind of conditional permit is the possibility of that permit's revocation. Making the implicit explicit simply exposes the diaphanously substandard nature of the Staff Report and does not change the proposed Young B&B into an acceptable use.

I am confused by the Staff Report's treatment of COA 7. In the second paragraph of the Executive Summary, the Staff Report states that COA 7 has been included because of issues with septic system and water supply capacity. Yet in the next paragraph it is stated that because of feedback regarding concern over the density of the proposal, the applicant has "volunteered" to limit the operation to a maximum of two (2) bedrooms and four (4) guests. It seems we have a situation where the neighborhood's stated concern about density can be abrogated by solving County's issues regarding water and septic systems. Surely such unsound logic cannot be used to recommend the approval of the Young B&B Special Permit.

Condition of Approval 5 states the "owner or operator of the Bed & Breakfast must reside on the premises." But the "or operator" part is counter to HCC 314-45.1.3.2, which states "The dwelling on the site shall be occupied by the owner of the cottage industry." As HCC 314-45.1.4 makes clear, HCC

314-45.1.3.2 is not allowed to be modified with a Special Permit. This constitutes evidence of the arbitrary and capricious nature of any granting of this Special Permit, and as such, adds further clarity to the fact that the proposed Young B&B is contrary to the public interest.

In Conclusion

The proposed Young B&B Special Permit is not in the interest of the neighborhood. It is not in the interest of public health and safety. It is not in the interest of the sensitive Elk River watershed. The proposed B&B Special Permit is only in the interest of Nancy Young's bank account and Humboldt County's coffers. For this and all the above-mentioned reasons, I request you deny the Young Bed and Breakfast Special Permit.

Respectfully,

A handwritten signature in black ink that reads "Matthew K. Turner". The signature is written in a cursive style with a large initial "M".

Matthew Turner
Elk River Resident

Encl.: Northern Hydrology Technical Memorandum, various screenshots

Humboldt ADU is a program developed by Humboldt County to support and inform homeowners within the county who are interested in building ADUs. Building an ADU not only benefits the homeowner, but also supports the community. ADUs often provide homes for the local workforce and families who serve essential roles in the county. Increasingly, these community groups are finding it difficult to find suitable and affordable housing. With the lack of available affordable housing, building and renting an ADU is truly considered to be a community service.



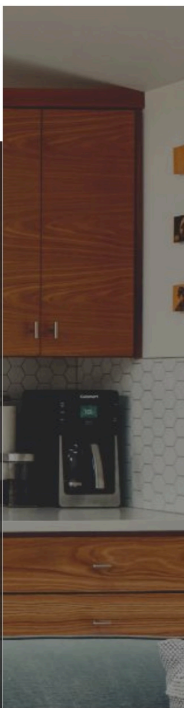
ADU 101

Whether you are new to learning about ADUs or ready to begin the process, we have the information you need. Visit our ADU resources to learn everything you need to know if you're considering building an ADU or Junior ADU.

Floor Plans

Check out floor plans, see photos, and learn more from your neighbors about building an ADU.

[LEARN MORE](#)



Building an ADU

[GET STARTED](#)

Close

17 / 22





Start your search



Airbnb your home



Elk River Cottage in Humboldt County near Eureka

★ 4.91 · 138 reviews · Superhost · Eureka, California, United States

Share Save



Entire guesthouse hosted by Nancy

3 guests · 1 bedroom · 3 beds · 1 bath



Self check-in

\$56 night

★ 4.91 · 138 reviews

CHECK-IN
Add date

CHECKOUT
Add date

Browser tabs: Flux AUTOP, The C, Don't, Conve, Macro Rep, HowC, The A, Can th, Humb, Hous, ADU1, humb, News, Public, Hous, Elk X

Address bar: https://www.airbnb.com/rooms/50230868/amenities?source_impression_id=p3_166

Page content:

- Photos Amenities Reviews Location \$56 night Check availability
- What this place o
- Garden view
- Kitchen
- Dedicated worksp
- Pets allowed
- Bathtub
- Show all 50 amenities
- Select check-in d
- Add your travel dates for ex
- May 202
- Su Mo Tu We
- 1 2 3
- 7 8 9 10 11 12 13 4 5 6 7 8 9 10

Modal window content:

- River view
- Bathroom**
- Bathtub
- Hair dryer
- Cleaning products
- Shampoo
- Hot water
- Bedroom and laundry**
- Essentials

Close

7 / 22



Browser tabs: Post P, a Your C, Flux C AUTOPL, CARD The Cl, Don't U, Conve, Macro Rep, HowC, The Ar, Can th, G Humb, Housin, Home, Rental, Public, Housin, Elk X

Address bar: https://www.airbnb.com/rooms/50230868/amenities?source_impression_id=p3_166

Search bar: Search

Navigation: Photos Amenities Reviews Location \$56 night Check availability

What this place offers

- Garden view
- Kitchen
- Dedicated workspace
- Pets allowed
- Bathtub

Show all 50 amenities

Select check-in dates

Add your travel dates for exact pricing

May 2022

Su	Mo	Tu	We	Th	Fr	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Dedicated workspace

Kitchen and dining

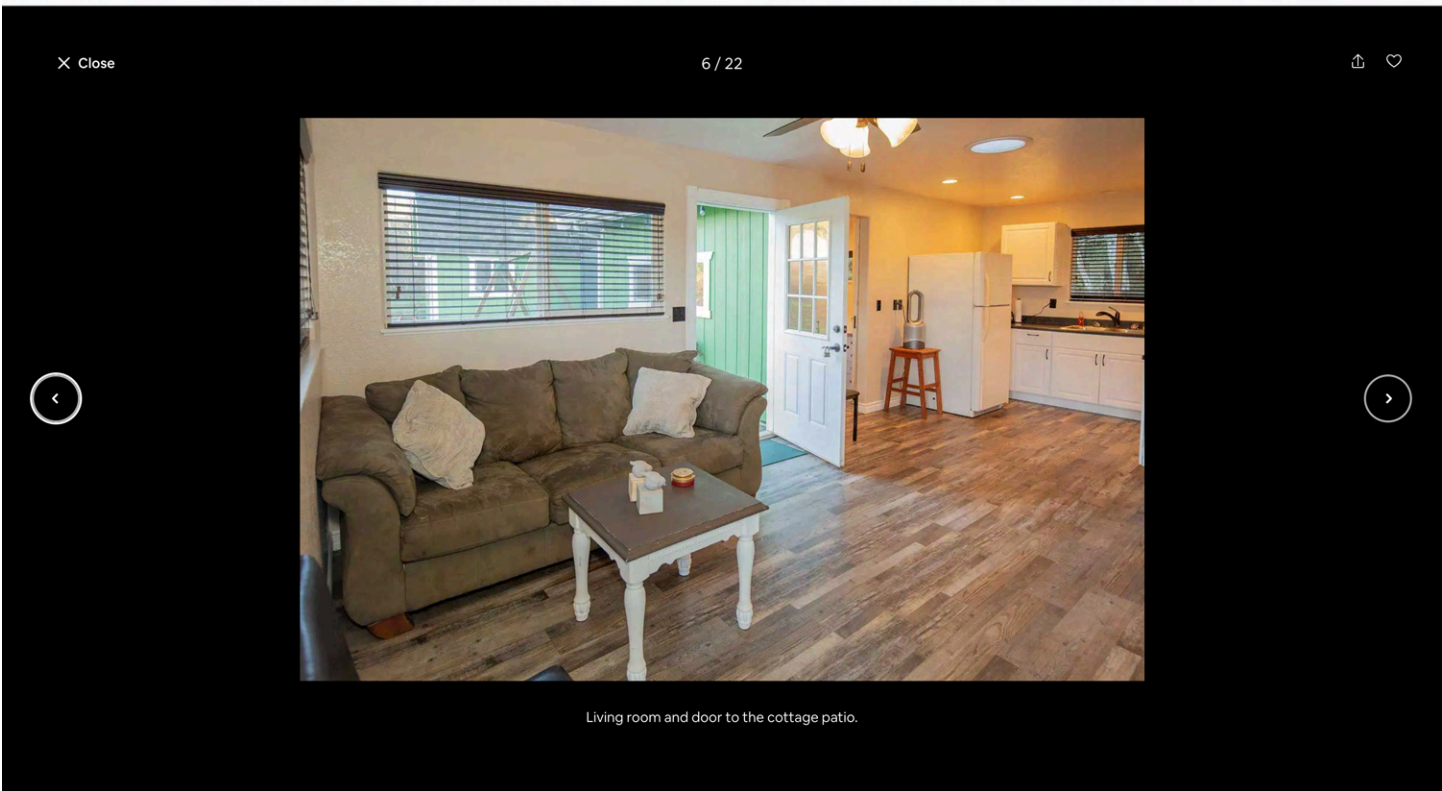
- Kitchen**
Space where guests can cook their own meals
- Mayfair refrigerator
- Microwave
- Cooking basics**
Pots and pans, oil, salt and pepper
- Dishes and silverware**
Bowls, chopsticks, plates, cups, etc.
- Freezer

Close

5 / 22



Also has microwave, toaster and hot water



Browser tabs: The Cu, Don't F, Convex, Macro Repo, Flux G, AUTOPL, HowCo, Why D, Airbnb, Airbnb and, Inside F, Your O, Airbnb, Elk River, Airbnb, Elk R X, Host pr

Address bar: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

Search: Search

Elk R ★ 4.91 · 138 reviews

Cleanliness 4.9
Accuracy 4.9
Communication 4.9
Location 4.7
Check-in 5.0
Value 4.9

throughout. Nice big space for the dogs to run and play. We all Enjoyed it

William
July 2021
So clean. So quiet. So peaceful. They have a fresh water pond with a waterfall out the window that is so peaceful. They have a couch and tv which was so comfy to cozy up on after a full day exploring the redwoods. Great price for the amount of space.

Shaun
July 2021
What a wonderful place! It's out in a gorgeous peaceful, quiet valley and at the end of a tiny neighborhood and right next to the forest and little creek-like river, yet is still close to town. The cottage is very nice, and quite spacious, and Nancy and family were very sweet and very helpful. Sooo much better than staying in the city.

Rusty
August 2022

[Translate to English \(US\)](#)

Self check-in Add date Add date

Browser tabs: Macro Rep, Flux C AUTOP, HowC, Why D, Airbnb, Airbnb and, Inside, Your C, Airbnb, Elk Riv, Airbnb, Elk X, Gray V, Elk Riv, Gorge

Address bar: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

Search: Search

✕

★ **4.91** · 138 reviews

Cleanliness	██████████	4.9
Accuracy	██████████	4.9
Communication	██████████	4.9
Location	██████████	4.7
Check-in	██████████	5.0
Value	██████████	4.9

Search reviews

John
July 2021

Amazing retreat from the city. Adjacent woods were a fun little adventure, and the property itself sits in a beautiful garden. Very good spot for the money.

Colton
July 2021

This was an excellent place to stay, the location is beautiful and the hosts are very nice. The rental is in the back of the property with a garden between the main house and the rental. The hosts were very gracious and allowed us to pick from their garden for dinner. The rental has a nice open layout with private views into the redwood forest. I would definitely stay again.

Julia
July 2021

Beautiful Place! Everything was so well kept and tidy with thoughtful touches throughout. Nice big space for the dogs to run and play. We all Enjoyed it

William
July 2021

Self check-in Add date Add date

Browser tabs: Flux C AUTOP, HowC, Why D, Airbnb, Airbnb and, Inside, Your C, Airbnb, Elk Riv, Airbnb, Elk X, Gray, Elk Riv, Gorge

URL: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

Elk Riv
★ 4.91 · 138 reviews

Cleanliness 4.9
Accuracy 4.9
Communication 4.9
Location 4.7
Check-in 5.0
Value 4.9


Search reviews

Clara
July 2021
The place was in a beautiful location tucked away from Eureka against the forest. Great spot to disconnect and explore!

Jennifer
July 2021
We loved Nancy's place, and she and her family members were so welcoming and accommodating. We would have loved to have stayed longer and would have if it had not already been booked. It's outside of the city on a gravel road, so the community is very quiet. Nancy has a beautiful meditation garden and there was a nice field and wooded area next to their home that was perfect for walking our dogs.

Olympia
July 2021
Beautiful place to stay! We had a great time and the pellet stove is a wonderful addition. The garden is so charming and inviting. Would definitely come back.

John
July 2021
Amazing retreat from the city. Adjacent woods were a fun little adventure, and the



Browser tabs: Flux C AUTOP, HowC, Why D, Airbnb, Airbnb and, Inside, Your C, Airbnb, Elk Riv, Airbnb, Elk X, Gray, Elk Riv, Gorge

URL: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

✕

★ **4.91 · 138 reviews**

Search reviews

Cleanliness	██████████	4.9
Accuracy	██████████	4.9
Communication	██████████	4.9
Location	██████████	4.7
Check-in	██████████	5.0
Value	██████████	4.9

veggies from their garden in the morning was such a wonderful treat too. I'd love to stay again sometime.

Lori
August 2021

Nancy and her family are very friendly. They are very quick to respond. They have a very nice cottage in a rural area so there is peace and quiet. There is a cool wooden bridge that you drive over to get to their place. They have a lovely garden area to have your morning coffee. There is a redwood forest behind the cottage that you can explore.

Matt
August 2021

A beautiful little slice of nature. Our family loved staying here. The garden is amazingly kept, The host (Nancy) and her family are a delight, and the place has all the amenities we could need (including a giant forest and creek literal feet away from the property!).

Overall a fantastic experience and 100% the place to stay if you are passing through Eureka. We stayed here twice (on the way up and the way back) after how great our first experience was and will be checking to see if the place is available for any future roadtrips through the area.

Self check-in Add date Add date

Browser tabs: on't, Conve, Macro Rep, Flux C AUTOP, HowC, Why D, Airbnb, Airbnb and, Inside, Your C, Airbnb, Elk Ri, Airbnb, Elk X, Gray, Elk Ri, Gorge

Address bar: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

Search: Search

Elk R ★ 4.91 · 138 reviews

Cleanliness	██████████	4.9
Accuracy	██████████	4.9
Communication	██████████	4.9
Location	██████████	4.7
Check-in	██████████	5.0
Value	██████████	4.9

Search reviews

nancy's place was phenomenal! her and her family were extremely friendly and hospitable. The guesthouse had everything we needed and more. Don't forget to sign their little guest booklet when you go! :-)

Emiko
March 2022

Nancy's place was just what my partner and I needed for a quick weekend get-a-way. The space was thoughtfully laid out and clean. We had everything we needed and Nancy was quick and responsive with communication if there was anything else we might need. The property itself was really beautiful and quiet. My partner and I enjoyed walking our dog around the woods nearby and had a fantastic time in the area. We will definitely be back again in the future!

Jake
February 2022

such a lovely spot! we've stayed at half a dozen places in eureka the last few years and this was my favorite. really great to find somewhere affordable and pet friendly and it feels quiet and private but still just 15 mins away from downtown eureka

Lydia
February 2022

Self check-in Add date Add date

Browser tabs: on't, Conve, Macro Rep, Flux C AUTOP, HowC, Why D, Airbnb, Airbnb and, Inside, Your C, Airbnb, Elk Riv, Airbnb, Elk X, Gray, Elk Riv, Gorge

Address bar: https://www.airbnb.com/rooms/50230868/reviews?source_impression_id=p3_1665

Search: Search reviews

★ 4.91 · 138 reviews

Cleanliness	4.9
Accuracy	4.9
Communication	4.9
Location	4.7
Check-in	5.0
Value	4.9

It was very nice very peaceful

Pamela
May 2022

We had the best time! Elk River Cottage is such a gem of a find. The cottage is stocked with everything we needed and we really enjoyed the pelt stove heater! Nancy was the perfect host and took the time to greet us and make sure we had what we needed. It was such a treat to be able to bring our canine daughter Abby and we all loved walking in the woods right next to the property. The gardens on the property are beautiful and there is a large open grassy space to take your pet. This cottage is perfect we will be back!!!!

Linda
May 2022

We wanted to stay in Arcata but ended up at this location just a little south of Eureka because we had a dog and we wanted a place where he could run a little. Nancy's place is set in a beautiful little valley filled with horses, goats, cows, sheep, and lots and lots of green pasture land. The unit itself was perfect for us and had everything we needed. We liked to sit out on the little patio at night and watch the stars. There is a lovely garden that Nancy has created and we enjoyed sitting out there in the mornings with our coffee. The little pond had tons of tadpoles in it and there were lots of flowers. Just beyond the patio/garden area is a huge pasture with a disc golf course on it so I would

Self check-in | Add date | Add date



Northern Hydrology and Engineering

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Telephone: (707) 839-2195; email: Jeff@northernhydrology.com

Engineering – Hydrology – Stream Restoration – Water Resources

TECHNICAL MEMORANDUM

Date: 29 September 2020

To: Charles J. Striplen
North Coast Regional Water
Quality Control Board
5550 Skylane Blvd, Suite A
Santa Rosa, CA 95403-1072



From: Jeffrey K. Anderson, P.E., M.S.

Expires: 30 Sep. 2021

Re: 1% Annual Chance Flood Elevation Estimates for the Lower Elk River, Humboldt County

INTRODUCTION AND BACKGROUND

As part of the Action Plan for the Upper Elk River Sediment Total Maximum Daily Load (TMDL), the North Coast Regional Water Quality Control Board has initiated the Elk River Recovery Assessment and Community Stewardship Program (Stewardship). The Stewardship Program is being led by California Trout (CalTrout) with technical assistance from Northern Hydrology & Engineering (NHE) and Stillwater Sciences. As part of Stewardship, a number of public meetings and Elk River landowner meetings have occurred since early 2019. During these meetings, several landowners have voiced concerns regarding flooding and the accuracy of the Federal Emergency Management Area (FEMA) flood hazard zone mapping. Upon review of the FEMA Flood Insurance Rate Map (FIRM) Elk River panels it was noted that several residential structures that currently flood are mapped outside of the FEMA flood hazard zone. It also became evident, based on conversations with landowners, that the current extent, depth, and risk associated with extreme flood events in the Elk River, such as the 1% annual chance (or 100-yr) flood, may not be fully understood or appreciated. This even applies to landowners who lived in the Elk River watershed during the extreme flood events of the 1950s, 1960s and 1970s, a period when the Elk River had more flood flow capacity than it does today. Given the loss of channel capacity by sedimentation and vegetation changes that have occurred since the 1990s, the associated depth and risk from extreme flood events has significantly increased over conditions that existed in the Elk River during the 1950s to 1970s.

Following recommendations from agency project partners and interest expressed by landowners, the two-dimensional hydrodynamic and sediment transport model developed as part of the Elk River Recovery Assessment (California Trout et al., 2018) was expanded to model extreme flood events up to the 1% annual chance flood. The expanded model can be used to provide:

- A modeling tool to support future flood analysis of the restoration strategy developed as part of the Stewardship program.
- Existing condition fluvial and coastal flood elevations for the 1% annual chance flood event in the Lower Elk River Study area (as described below).

This technical memorandum (memo) provides a summary of the flood analysis conducted by NHE on the Elk River to provide 1% annual chance flood water surface elevation estimates for the Study area covered by the modeling domain. The Study area is defined as the lower portions of the North Fork (NF) Elk River and South Fork (SF) Elk River and the Elk River from the confluence of the NF and SF Elk Rivers to Humboldt Bay (Figure 1).

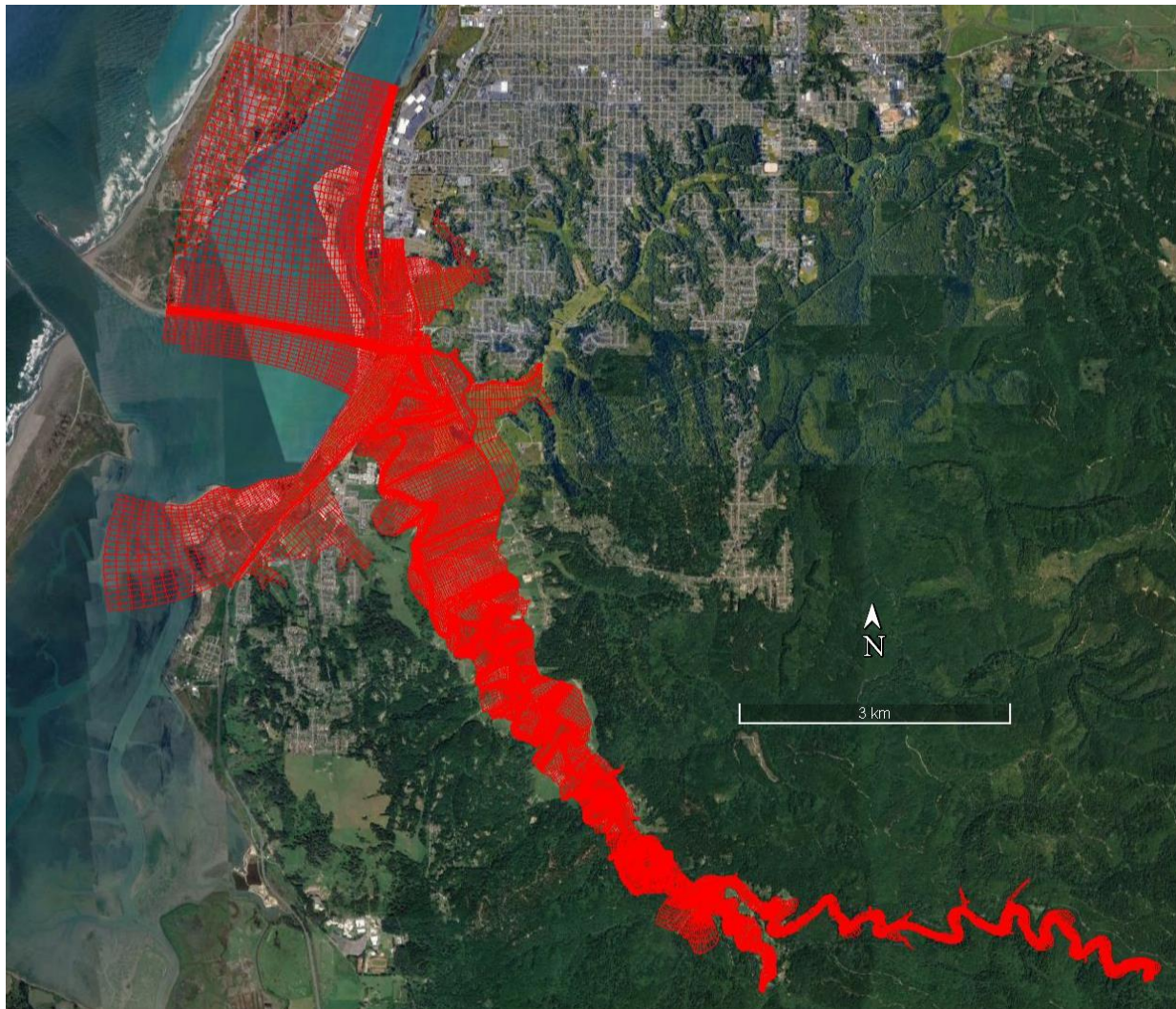


Figure 1. Location map showing the extent of the Elk River hydrodynamic expanded model (H-Exp Model).

The majority of the Study area is located within a FEMA Zone A special flood hazard area for which 1% base flood elevations (BFE) have not been determined, and Zone X special flood hazard area of minimal flood hazard and area of future conditions 1% annual chance flood hazard (FEMA, 2017; FEMA, 2018). The Zone A designation generally implies an unstudied area in which FEMA has not conducted a detailed hydrologic and hydraulic analysis. FEMA has conducted detailed studies at two locations within the Study area. These include a narrow strip of land adjacent to Humboldt Bay in which a detailed coastal hazard analyses provided 1% BFEs for both stillwater and wave runup elevations; and Martin Slough in which a detailed hydrologic and hydraulic analysis provided 1% BFEs in this area approximately 0.5 miles above its confluence with Swain Slough (FEMA, 2018). The Martin Slough hydraulic analysis consisted of a backwater analysis using the HEC-2 program assuming normal-depth downstream boundary conditions. The analysis did not consider backwater effects from the mainstem Elk River.

The 1% annual chance flood elevations determined in this work can be used to provide estimates of the 1% BFE in the Zone A areas of the Elk River. It should be noted that these 1% flood elevations have not formally been adopted by FEMA to represent 1% BFE but do provide the best available information for the Zone A areas of the Elk River covered by the model domain. FEMA, the County of Humboldt (Humboldt) or City of Eureka could pursue using this information and amending the Flood Insurance Study (FIS) and/or Flood Insurance Rate Map (FIRM) panels related to the Elk River.

The 1% flood elevations presented in this memo are a composite of the maximum water levels from either a riverine flood or a coastal stillwater extreme high-water (storm surge) level analysis within the Study area. These results do not account for sea-level rise effects, nor represent combined probabilities of riverine flood and coastal events occurring at the same time, which is beyond the scope and funds available for this work.

Units provided in this memo are a combination of U.S. customary and metric units. The modeling analysis was conducted in metric units. Elevations are referenced to the North American Vertical Datum of 1988 (NAVD88), and the horizontal coordinate system is Universal Transverse Mercator (UTM) Zone 10, North American Datum of 1983 (NAD83).

This memo supersedes a previous memo dated 30 March 2020.

GENERAL FLOOD ANALYSIS APPROACH

This study used an existing two-dimensional hydrodynamic and sediment transport model (HST Model) developed as part of the Elk River Recovery Assessment (California Trout et al., 2018). The existing HST Model was not configured to model 1% annual chance flood flows and it was necessary to expand the model grid in the lowest reach of the Elk River near Humboldt Bay. This expansion included extending the model grid into areas west of Highway 101 and Humboldt Bay on the both north and south sides of Elk River. The expanded HST Model will only model hydrodynamics and will be referred to as the H-Exp Model.

The Elk River Study area is subject to flood and inundation regimes from both riverine flooding and coastal extreme high-water events (storm surge). Two event conditions were analyzed, one for riverine flooding and the second for coastal flooding. For riverine flooding, the Study area includes the confluence of the NF and SF Elk Rivers (confluence). Based on available data, the

backwater effects from the confluence on upstream flood levels needs to be considered in the analysis, which is a deviation from the typical FEMA approach for determining BFEs. The approach used in this study for determining 1% annual chance flood levels used coincident peaks for the NF and SF Elk River that consider backwater effects at the confluence of these river tributaries. This approach required two separate coincident flood cases be modeled within the riverine event condition. The two 1% annual chance flood event conditions analyzed are described as follows:

- Event Condition 1: Riverine flooding from the 1% annual chance flood event from upstream riverine sources with a representative existing condition spring tide level at the downstream boundary. The H-Exp Model was used to represent steady-state conditions for riverine flooding. Two coincident peak flood cases were simulated for Event Condition 1:
 - Case 1 consists of analyzing flood conditions assuming the NF Elk River discharge is at the 1% annual chance peak-flood, and the SF Elk River discharge is the difference between the 1% annual chance peak-flood for the Elk River below the confluence and the NF Elk River 1% annual chance peak-flood.
 - Case 2 is the opposing coincident flood condition and assumes the SF Elk River discharge is at the 1% annual chance peak-flood, and the NF Elk River discharge is the difference between the 1% annual chance peak-flood estimates below the confluence and SF Elk River.
- Event Condition 2: Coastal flooding based on a representative existing condition stillwater 1% annual chance extreme coastal event at the downstream boundary with winter median-flow from upstream sources. The H-Exp Model was used as a dynamic model for coastal flooding, with a tidal time series boundary condition and steady winter median-flows for all streams.

To account for the riverine and coastal flood events, the 1% annual chance flood elevation estimate was taken as the maximum water level from either Event Condition 1 (Case 1 and Case 2) or Event Condition 2.

HYDROLOGIC ANALYSIS

This section describes the hydrologic analysis conducted for determining 1% annual chance peak-flood flow estimates within the general Study area.

Background

Streamflow data on the Elk River is limited to two time periods. The USGS maintained a streamflow gaging station on the Elk River below the NF and SF Elk River confluence (USGS 11479700 Elk River near Falk, CA) for water year (WY) 1958 to 1967, and annual peak-flow data exist for this period-of-record (POR). Since WY 2003, Humboldt Redwood Company has maintained streamflow gaging stations on the Elk River below the NF and SF confluence (approximate location of the historic USGS gage), NF Elk River above the confluence, and SF Elk River above the confluence, and annual peak-flow estimates exist at these three locations for WY 2003 to current.

A review of USGS published peak-flood estimates (Gotvald et al., 2012) for the Elk River station demonstrates that the less frequent peak-flood estimates (e.g. 1% annual chance event) from a Bulletin 17B analysis (IACWD, 1982) using a Log-Pearson Type-3 distribution on the POR annual peak-flows are significantly lower than peak-flood estimates from the regional flood-frequency equations (Table 1). A condition that does not exist for other gaged streams in the local vicinity as the Elk River, such as the USGS gaging station on Jacoby Creek which is another tributary to Humboldt Bay, and the USGS gaging station on Little River that has a watershed area similar in size to the Elk River (Table 1).

Table 1. USGS Flood-frequency estimates for Elk River, Little River and Jacoby Creek (Gotvald et al., 2012) from a Bulletin 17B analysis (Log-Pearson Type 3 distribution) of the annual peak-flow station data and the regional flood-frequency equations. Not all flood-frequency estimates available in Gotvald et al. (2012) are provided.

Station Name	Basin Area (mi ²)	Flood-Frequency Estimate ¹	Percent (%) Annual Chance Flow (cfs)			
			50	10	1	0.2
Elk River near Falk, CA (USGS Sta: 11479700; POR: 1958-1967)	43.2	G	2,740	3,430	3,960	4,220
		R	2,880	6,730	11,900	15,400
		%Diff	5.1	96	201	265
Little River near Trinidad, CA (USGS Sta: 11481200; POR: 1953-2006)	40.5	G	4,990	8,840	12,700	14,900
		R	3,250	7,220	12,500	15,900
		%Diff	-34.9	-18	-2	7
Jacoby Creek near Freshwater, CA (USGS Sta: 11480000; POR: 1955-1974)	6.05	G	757	1,560	2,630	3,400
		R	606	1,390	2,450	3,170
		%Diff	-19.9	-11	-7	-7

1) G is estimate from the Bulletin 17B analysis using the annual peak-flows from each station; R is estimate from regional flood-frequency equations; %Diff is percent difference calculated as $(R-G)/G \times 100$.

Review of Table 1 indicates that the Elk River Bulletin 17B peak-flood estimates for the 10%, 1% and 0.2% annual chance flows are approximately 96%, 201% and 265% lower than the regional flood-frequency equation estimates, respectively. However, the 10%, 1% and 0.2% annual chance flood-frequency estimates for Little River and Jacoby Creek only differ from each other by approximately 7% to -18%, indicating reasonable consistency between the Bulletin 17B and regional equation estimates. One possible explanation for this discrepancy is that the above-mentioned Elk River gaging sites are in an area with significant overbank flows during flood events (Figure 2). Not only is the site inaccessible during flood events due to road flooding, it appears that the gaged record may have only accounted for discharge within the channel and did not accurately account for the overbank flows. NHE has concluded that the observed annual peak-flow record for the historic USGS Elk River gage (USGS 11479700 Elk R. nr Falk CA) do not represent accurate annual peak-flows and conducting flood-frequency analysis with these data provide unreasonably low peak-flood estimates and should not be used. NHE has further concluded that this same condition applies for the three active Humboldt Redwood Company Elk

River gaging stations described above, and the annual peak-flows from these stations should not be used to provide peak-flow estimates. Consequently, NHE used the regional flood-frequency equations to estimate peak-flood flows for this study.

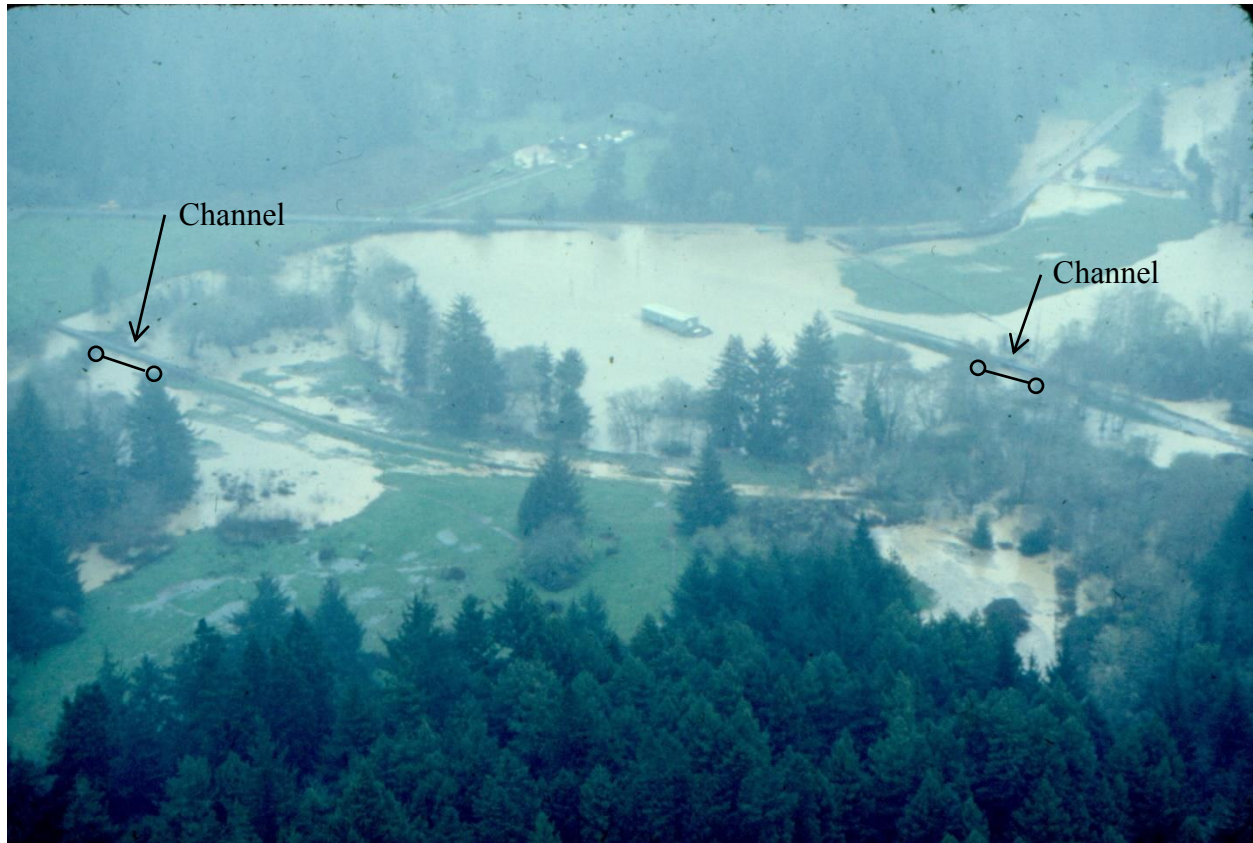


Figure 2. 1975 flood event on Mainstem Elk River showing large overbank floodplain flows. The photo is looking upstream and shows the Steel Bridge (center – right side of photo) and old railroad bridge (center – left side of photo). The approximate river channel width (o—o) is shown at both bridge locations and make up a small fraction of the total flood extents. Both bridge approaches encroach into the floodplain and the Steel Bridge road is covered by floodplain flow. The 1975 flood is the highest annual peak-flow event of record for Little River (POR: 1953 to 2019).

Methods and Results

Peak-Flood Estimates

The 1% annual chance peak-flood estimates for the Elk River study area were estimated using the regional flood-frequency equation for California (regional-equation) (Gotvald et al., 2012). Regional-equation parameters for the NF and SF Elk River, Elk River below the NF and SF Elk River confluence, and various Elk River tributaries (Table 2) were determined from the USGS online StreamStats program (<http://water.usgs.gov/osw/streamstats/>).

Table 2. Regional flood-frequency equation parameters for Elk River Study area (refer to Figure 3).

Parameter	Basin Area (mi²)	Annual Precipitation (in)
NF Elk River below confluence with Lake Creek	18.5	57.0
NF Elk River below confluence with Browns Gulch	20.2	56.3
NF Elk River below confluence with Dunlap Gulch	21.0	55.9
NF Elk River below confluence with Unnamed Tributary 3	21.7	55.6
NF Elk River above SF Elk River	22.6	55.3
SF Elk River above NF Elk River ¹	19.4	57.8
Elk River below confluence of NF and SF Elk River ¹	42.0	56.5
Elk River below confluence with Railroad Gulch	43.2	56.3
Elk River below confluence with Clapp Gulch	44.2	56.1
Elk River below confluence with Unnamed Tributary 4	44.9	55.9
Elk River below confluence with Shaw Gulch	46.0	55.7
Elk River below confluence with Unnamed Tributary 1	47.3	55.4
Elk River below confluence with Unnamed Tributary 2	47.7	55.3
Elk River below confluence with Orton Creek	49.1	55.0
Elk River below confluence with Swain Slough (includes Martin Slough)	55.8	53.5

1) Adjusted parameter estimates by removing Railroad Gulch from SF Elk River.

Several tributaries to the NF Elk River and Elk River between the confluence and Humboldt Bay are included in the Elk River HST model (refer to Figure 3). Tributary flood flows were determined by calculating the 1% annual chance peak-flood estimate in the Elk River directly below the tributary confluence using the regional equation, and then subtracting the nearest upstream 1% annual chance peak-flood estimate. This approach provided tributary flood flows that were lower than the 1% annual chance peak-flood estimates from the regional-equation for each tributary but maintained upstream to downstream consistency in 1% annual chance peak-flood estimates along the Elk River.

As discussed earlier, two coincident flood cases were analyzed for Event Condition 1.

- Case 1 consists of analyzing flood conditions when the NF Elk River is at the estimated 1% annual chance peak-flood flow. The SF Elk River flood flow was taken to be the difference between the NF Elk River 1% annual chance peak-flood flow and the estimated 1% peak-flood flow below the confluence of the NF and SF Elk River. Under Case 1, the SF Elk River flood flow used in the analysis is lower than the estimated 1% annual chance peak-flood flow for the SF Elk River.
- Case 2 consists of analyzing flood conditions when the SF Elk River is at the estimated 1% annual chance peak-flood flow. The NF Elk River flood flow was taken to be the difference between the SF Elk River 1% annual chance peak-flood flow and the

estimated 1% annual chance peak-flood flow below the confluence of the NF and SF Elk River. Under Case 2, the NF Elk River flood flow used in the analysis is lower than the estimated 1% annual chance peak-flood flow for the NF Elk River.

Tributary flood flows downstream of the confluence were the same between Case 1 and Case 2.

Table 3 and Table 4 provide summaries of the Case 1 and Case 2, respectively, 1% annual chance peak-flood flow and coincident flood flow estimates for the NF and SF Elk River, Elk River below the NF and SF Elk River confluence, and Study area tributaries.

Table 3. Summary of Case 1 (Event Condition 1) 1% annual chance peak-flood flow and coincident flood flow estimates for the Elk River Study area (refer to Figure 3).

Parameter	Flood Estimate (cfs)	Note
Case 1 for Event Condition 1		
NF Elk River above confluence with SF Elk River	6,720	1% annual chance peak-flood estimate
NF Elk River below confluence with Lake Creek	5,934	NF Elk River blw Lake Creek 1% peak-flood adjusted to NF Elk River 1% peak-flood
Browns Gulch	426	Difference between NF Elk River blw Lake Creek and NF Elk River blw Browns Gulch 1% peak-flood flows adjusted to NF Elk River 1% peak-flood
Dunlap Gulch	192	Difference between NF Elk River blw Browns Gulch and NF Elk River blw Dunlap Gulch 1% peak-flood flows adjusted to NF Elk River 1% peak-flood
Unnamed Tributary 3	169	Difference between NF Elk River blw Dunlap Gulch and NF Elk River blw Unnamed Trib 3 1% peak-flood flows adjusted to NF Elk River 1% peak-flood
SF Elk River above confluence with NF Elk River	4,907	Coincident SF Elk River flow as difference between Elk River below confluence and NF Elk River 1% peak-flood flows
Elk River below confluence of NF and SF Elk River	11,627	1% annual chance peak-flood estimate
Railroad Gulch	268	Difference between Elk River blw NF & SF Elk confluence and Elk River blw Railroad Gulch 1% peak-flood flows
Clapp Gulch	214	Difference between Elk River blw Railroad Gulch and Elk River blw Clapp Gulch 1% peak-flood flows
Unnamed Tributary 4	142	Difference between Elk River blw Clapp Gulch and Elk River blw Unnamed Trib 4 1% peak-flood flows
Shaw Gulch	235	Difference between Elk River blw Unnamed Trib 4 and Elk River blw Shaw Gulch 1% peak-flood flows
Unnamed Tributary 1	267	Difference between Elk River blw Shaw Gulch and Elk River blw Unnamed Trib 1 1% peak-flood flows
Unnamed Tributary 2	80	Difference between Elk River blw Unnamed Trib 1 and Elk River blw Unnamed Trib 2 1% peak-flood flows
Orton Creek	286	Difference between Elk River blw Unnamed Trib 2 and Elk River blw Orton Creek 1% peak-flood flows
Martin Slough	1,313	Difference between Elk River blw Orton Creek and Elk River blw Martin Slough 1% peak-flood flows

Table 4. Summary of Case 2 (Event Condition 1) 1% annual chance peak-flood flow and coincident flood flow estimates for the Elk River Study area (refer to Figure 3).

Parameter	Flood Estimate (cfs)	Note
Case 2 for Event Condition 1		
NF Elk River above confluence with SF Elk River	5,592	Coincident NF Elk River flow as difference between Elk River below confluence and SF Elk River 1% peak-flood flows
NF Elk River below confluence with Lake Creek	4,938	NF Elk River blw Lake Creek 1% peak-flood adjusted to NF Elk River coincident flow
Browns Gulch	354	Difference between NF Elk River blw Lake Creek and NF Elk River blw Browns Gulch 1% peak-flood flows adjusted to NF Elk River coincident flow
Dunlap Gulch	159	Difference between NF Elk River blw Browns Gulch and NF Elk River blw Dunlap Gulch 1% peak-flood flows adjusted to NF Elk River coincident flow
Unnamed Tributary 3	140	Difference between NF Elk River blw Dunlap Gulch and NF Elk River blw Unnamed Trib 3 1% peak-flood flows adjusted to NF Elk River coincident flow
SF Elk River above confluence with NF Elk River	4,907	1% annual chance peak-flood estimate
Elk River below confluence of NF and SF Elk River	11,627	1% annual chance peak-flood estimate
Elk River tributaries below confluence of NF and SF Elk River	NA	All tributary flows below confluence of NF and SF Elk River are same as Case 1 (Table 3)

Winter Median-Flow

Winter median-flow estimates for Elk River and tributaries were necessary for the Event Condition 2 analysis. Winter median-flow estimates were determined for each tributary by scaling Little River near Trinidad (USGS 11481200) winter median-flow by tributary watershed area ratios. The winter median-flow estimate for Little River (243 cfs) was taken as the median flow for the months of November to April for the 64-year record (WY 1956 to 2019). The same general top-down approach used for the peak-flow estimates was used for estimating winter median-flows for the Elk River study area (Table 5).

Table 5. Summary of Event Condition 2 winter median-flow estimates for the Elk River Study area (refer to Figure 3).

Parameter	Winter Median-Flow Estimate (cfs)	Note
Event Condition 2		
NF Elk River above confluence with SF Elk River	135.4	Winter median-flow estimate for NF Elk River
NF Elk River below confluence with Lake Creek	115.4	NF Elk River blw Lake Creek winter median-flow adjusted to NF Elk River winter median-flow
Browns Gulch	10.6	Difference between NF Elk River blw Lake Creek and NF Elk River blw Browns Gulch winter median-flow adjusted to NF Elk River winter median-flow
Dunlap Gulch	5.0	Difference between NF Elk River blw Browns Gulch and NF Elk River blw Dunlap Gulch winter median-flow adjusted to NF Elk River winter median-flow
Unnamed Tributary 3	4.4	Difference between NF Elk River blw Dunlap Gulch and NF Elk River blw Unnamed Trib 3 winter median-flow adjusted to NF Elk River winter median-flow
SF Elk River above confluence with NF Elk River	116.2	Winter median-flow estimate for SF Elk River
Elk River below confluence of NF and SF Elk River	251.7	Winter median-flow estimate
Railroad Gulch	7.2	Difference between Elk River blw NF & SF Elk confluence and Elk River blw Railroad Gulch winter median-flow
Clapp Gulch	6.0	Difference between Elk River blw Railroad Gulch and Elk River blw Clapp Gulch winter median-flow
Unnamed Tributary 4	4.2	Difference between Elk River blw Clapp Gulch and Elk River blw Unnamed Trib 4 winter median-flow
Shaw Gulch	6.6	Difference between Elk River blw Unnamed Trib 4 and Elk River blw Shaw Gulch winter median-flow
Unnamed Tributary 1	7.8	Difference between Elk River blw Shaw Gulch and Elk River blw Unnamed Trib 1 winter median-flow
Unnamed Tributary 2	2.4	Difference between Elk River blw Unnamed Trib 1 and Elk River blw Unnamed Trib 2 winter median-flow
Orton Creek	8.4	Difference between Elk River blw Unnamed Trib 2 and Elk River blw Orton Creek winter median-flow
Martin Slough	40.1	Difference between Elk River blw Orton Creek and Elk River blw Martin Slough winter median-flow

HYDRAULIC ANALYSIS

This section summarizes the hydrodynamic model modification and further development used to estimate 1% annual chance flood elevations in the Elk River study area.

Elk River Hydrodynamic Model

The HST Model developed as part of the Elk River Recovery Assessment (California Trout et al., 2018) was used to simulate the hydrodynamics and sediment transport of the lower reaches of the Elk River for the observational period of Water Year (WY) 2003 to 2015. The HST model was developed using the Environmental Fluid Dynamics Code (EFDC) modeling framework, which solves the three-dimensional shallow water equations of motion and dynamically couples salinity, temperature, sediment transport and water quality transport modules. The EFDC model can be configured for one-, two- and three-dimensional simulations. The Elk River HST Model was configured as a two-dimensional model. The Windows-based EFDC_Explorer8.4 was used for a majority of the pre- and post-processing, and the enhanced EFDCPlus model was used in this assessment (Craig, 2018).

The HST Model grid domain covers approximately 18 mi (~29.5 km) of Elk River channel, with the upstream boundaries of the domain beginning just below Lake Creek on the NF Elk River and Toms Gulch on the SF Elk River, and the downstream boundary ending in Humboldt Bay (Figure 1 and Figure 3). The model grid was originally configured to achieve prediction goals and expectations at both the grid and reach scales and allow for long-term simulations (~13 years) within reasonable computer run times. The highest flood flow within the 13-yr simulation record (WY 2003 to 2015) was an approximate 10% annual chance flood event in December 2002. Upstream of Highway 101 (HWY101) the model domain includes the active 10% to 1% annual chance floodplain. However, downstream of HWY101 the model grid was confined to the Elk River channel which is confined by levees, a sand spit, and higher topographic areas which did not overtop during the peak flood events in the 13-yr simulation record. To model 1% annual chance flood events the HST Model grid was expanded in the downstream reaches to allow flood flows to cross HWY101, and flow south towards King Salmon and North towards the Eureka wastewater facility (Figure 1 and Figure 3). The expanded grid resolution diminishes in the north and south directions moving away from the Elk River channel. The coarser grid north and south areas may miss topographic features that could raise water levels above predicted values and under-estimate inundation in these areas. As mentioned earlier, the expanded model is referred to as the H-Exp Model to differentiate it from the original Elk River HST Model.

The H-Exp Model was configured as a two-dimensional (2D) model (Figure 3). The curvilinear-orthogonal grid consists of 41,246 horizontal segments and one complete mixed, depth-averaged vertical layer. Consistent with the original HST Model, the H-Exp Model contains thirteen (13) stream flow boundaries which includes the NF and SF Elk Rivers and eleven tributaries. Two different Humboldt Bay downstream open boundary condition regions were included to accommodate the expanded grid. In general, consistent grid elevations and model parameters (e.g. effective bottom roughness height (Z_0), vegetation drag coefficients, and eddy viscosity) from the calibrated and validated HST Model were used in H-Exp Model. For a more detailed discussion of the HST Model development, reference can be made to Elk River Recovery Assessment (California Trout et al., 2018).

Infrastructure components incorporated into the H-Exp Model domain include tide gate structures, drainage ditch features, bridge crossings and at-grade floodplain roads, which are briefly discussed in the following:

- The four largest tide gate structures and the major drainage ditch features located in the lower agricultural reaches of the domain were incorporated into the model grid.
- Six bridge crossings located on the NF Elk River (Concrete Bridge), SF Elk River (SF Bridge), and Mainstem Elk River (Elk River Courts Road, Berta's Road, Zanes Road, and HWY101) were incorporated into the model grid. The bridge crossing topographic constrictions were accounted for in the grid, but the bridge piers and decks were not.
- Six at-grade roads (NF Elk River Road, Steel Bridge Road, Elk River Courts Road, Bertas Road, Zanes Road and HWY101) that cross the floodplain perpendicular to the direction of flow were also incorporated into the model grid.

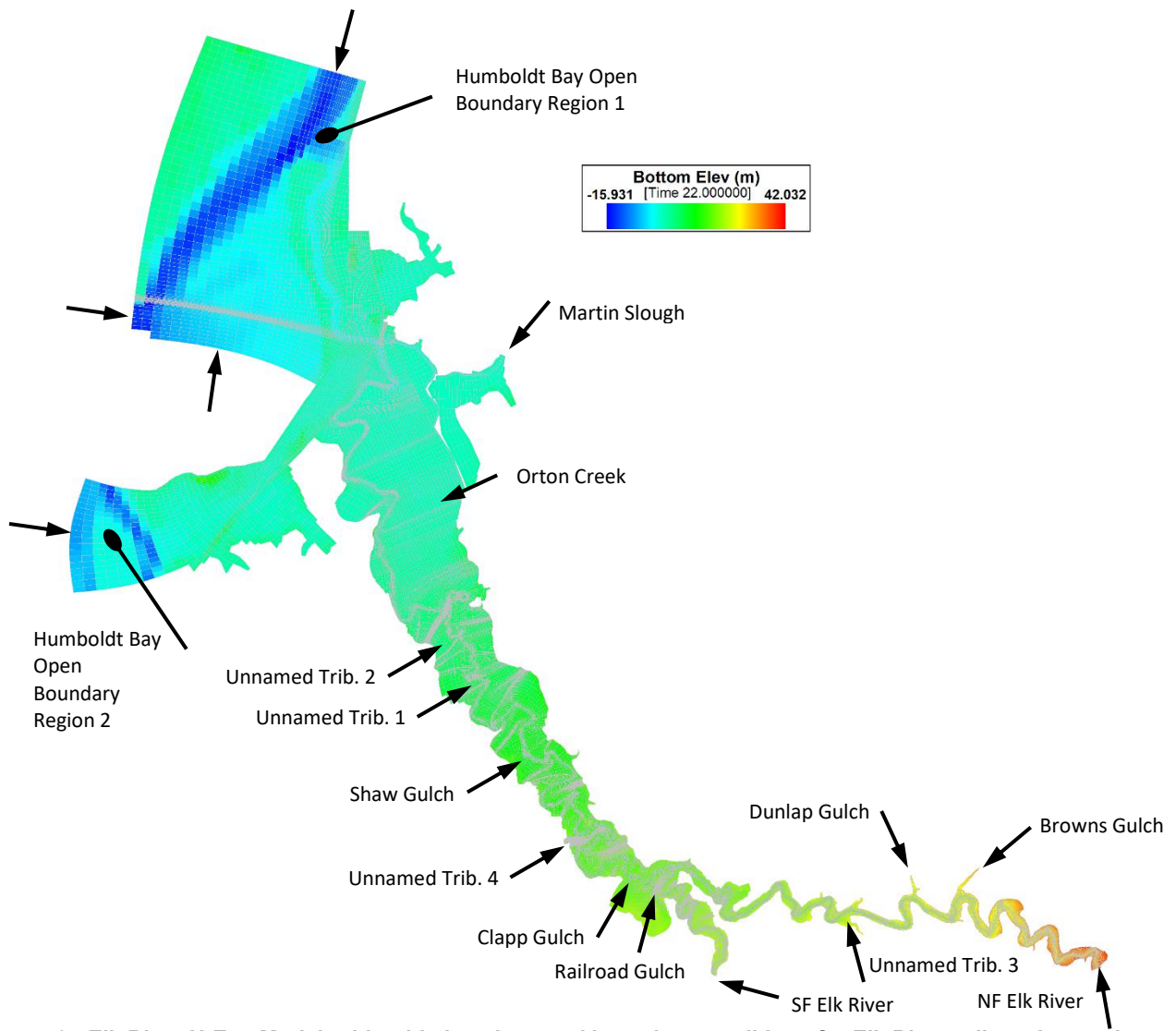


Figure 3. Elk River H-Exp Model grid, grid elevations and boundary conditions for Elk River, tributaries, and Humboldt Bay open boundary regions.

For this study, the H-Exp model only simulated hydrodynamics (i.e. depth and velocity) and not sediment transport. The original HST model was calibrated and validated to a large data set of water surface elevations, velocity, discharge, and suspended sediment concentration observations in the Elk River model domain study area for WY 2003 to 2015. The model calibration and validation results demonstrate high predictive capability for all simulated variables.

Correlation plots of water surface elevation for in-channel stage data (Figure 4) and floodplain high-water mark data (Figure 5) for the WY 2015 calibration period show high correlation of predictions to observations. The high correlation of predictions to observations indicate that the HST model and H-Exp Model have good to excellent predictive skill for water surface elevations over a large range of elevations. Only calibration results are provided in this memo, but validation results show similar correlation.

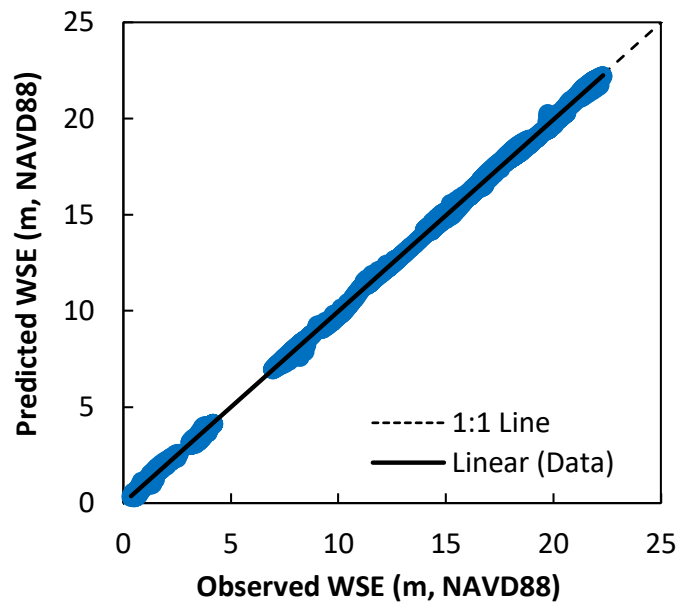


Figure 4. Observed and predicted WY 2015 water surface elevation (WSE) (in meters) for in-channel stage data [sample number = 13,088, correlation coefficient >0.999, average absolute error = 0.085 m (0.28 ft), root mean square error = 0.108 m (0.35 ft)].

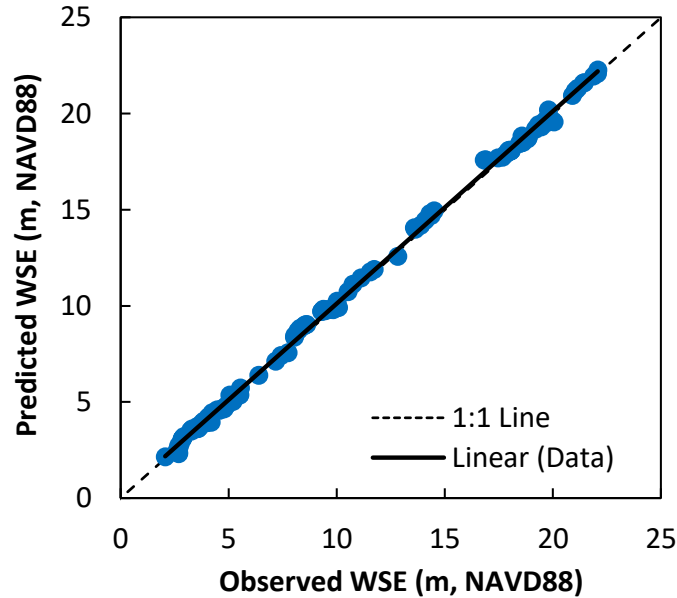


Figure 5. Observed and predicted WY 2015 water surface elevation (WSE) (in meters) for floodplain high water mark data [sample number = 112, correlation coefficient >0.999, average absolute error = 0.111 m (0.36 ft), root mean square error = 0.256 m (0.84 ft)].

Independence of Coastal (Surge) and Riverine Events

The Study area is subject to coastal extreme high-water level (storm surge) and riverine flood events. These processes can happen independently or simultaneously occur creating combined flood levels from both coastal and riverine events. Along much of the U.S. Pacific Coast, storm systems that produce extreme coastal surge events are not the same systems that produce extreme riverine flooding, and these events can generally be assumed independent (FEMA, 2005).

To verify the independence assumption, an evaluation of annual peak-flows for the Eel River at Scotia (USGS 11477000) and Little River near Trinidad (USGS 11481200), and the coincident maximum daily tide level from the Crescent City tide gauge (NOAA 94119750) on station datum was conducted (Figure 6). The intersection of these data is compared to the Eel River and Little River flood level probabilities from Gotvald et al. (2012), and the Crescent City extreme high-water level event probabilities and mean higher high water (MHHW) and mean monthly maximum water (MMMW) levels from NHE (2015).

Over the POR for both river locations simultaneous coastal and riverine events exceeding 10% annual chance probabilities have not occurred. Although a limited number of simultaneous events did occur between 50% and 10% annual chance probabilities at both locations. Results indicate that coastal and riverine extreme events generally appear independent or can be assumed widely separated in time.

Figure 6 also demonstrates that coastal water levels were between MHHW and the 50% annual chance event for most annual peak-flows at both river locations. This indicates that the assumption of using a MMMW tidal series as a typical downstream boundary condition for riverine flood events is reasonable.

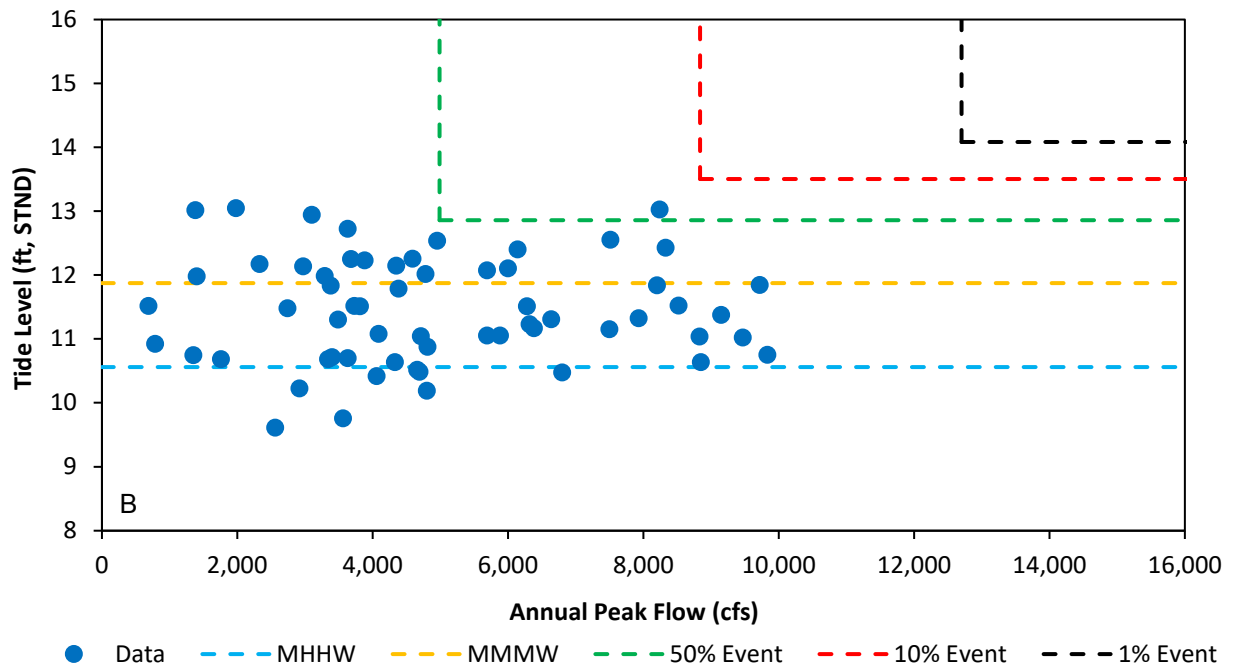
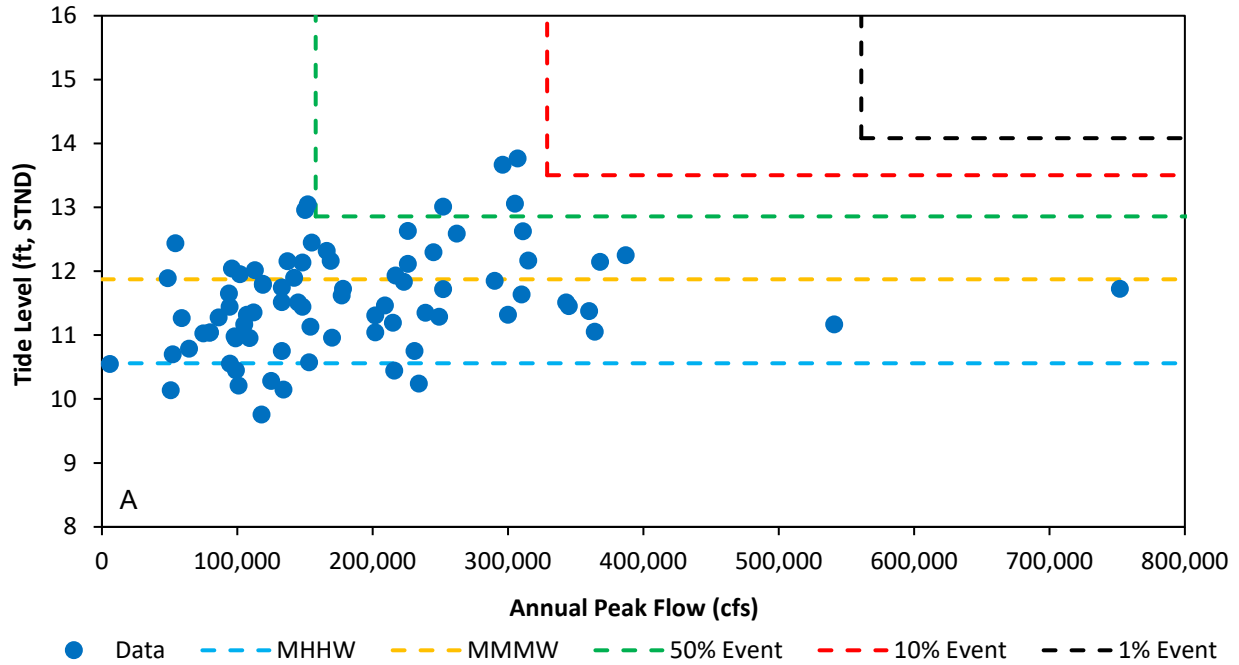


Figure 6. Comparison of (A) Eel River at Scotia (USGS 11477000) and (B) Little River near Trinidad (USGS 11481200) annual peak flows and coincident maximum daily tide levels for Crescent City (NOAA 94119750) tide gauge reported on station datum (STND). Extreme high-water level event probabilities and mean higher high water (MHHW) and mean monthly maximum water (MMMW) for Crescent City are from NHE (2015); and Eel River and Little River flood probabilities are from Gotvald et al. (2012). #% Event (e.g. 1% Event) represents the #% annual chance event (e.g. 1% annual chance event).

Boundary Conditions

This section provides an overview of the H-Exp Model upstream and downstream boundary conditions used for the Event Condition 1 and Event Condition 2 analysis.

Event Condition 1

Event Condition 1 analyzed the 1% annual chance flood from upstream riverine sources with a representative constant existing condition spring tide level at the Humboldt Bay downstream boundary regions. The H-Exp Model was used as a steady-state model with constant boundary conditions for Event Condition 1.

Due to backwater conditions at the NF and SF Elk River confluence, two cases were analyzed. For Case 1 the NF Elk River was at the 1% annual chance peak-flood flow, and the tributary peak-flows used in the analysis are summarized in Table 3. Case 2 assumes the SF Elk River is at the 1% annual chance peak-flood flow, and the tributary flows are summarized in Table 4.

The downstream boundary condition spring tide water level for Case 1 was represented as the mean monthly maximum (MMMW) tide level, which was taken from the Humboldt Bay sea-level rise 2D modeling work conducted by NHE (2015) for Year 2012. For this study the Year 2012 results from NHE (2015) represent existing conditions. The MMMW water levels were extracted at the corners of the two open boundary regions (Figure 3), and then interpolated along each boundary edge. MMMW water levels in open boundary region 1 ranged between 7.94 and 8.02 ft, and in region 2 between 7.99 and 8.01 ft.

Event Condition 2

Event Condition 2 analyzed the stillwater 1% annual chance extreme coastal event in Humboldt Bay with winter median-flow from upstream riverine sources. For Event Condition 2, the H-Exp Model was used as a dynamic model with tidal time series boundary conditions in Humboldt Bay and steady winter median-flows for all streams (Table 5).

The representative 1% annual chance tidal series were extracted from the Humboldt Bay sea-level rise 2D model results (NHE, 2015) for Year 2012. Like Event Condition 2, the tidal time series were extracted at the corners of each open boundary region and interpolated along the boundary region edges. Figure 7 shows a representative 1% annual chance tidal series used as one of the Humboldt Bay boundary conditions. It should be noted that the tidal series contains both the 1% and 0.2% annual chance extreme high-water level events.

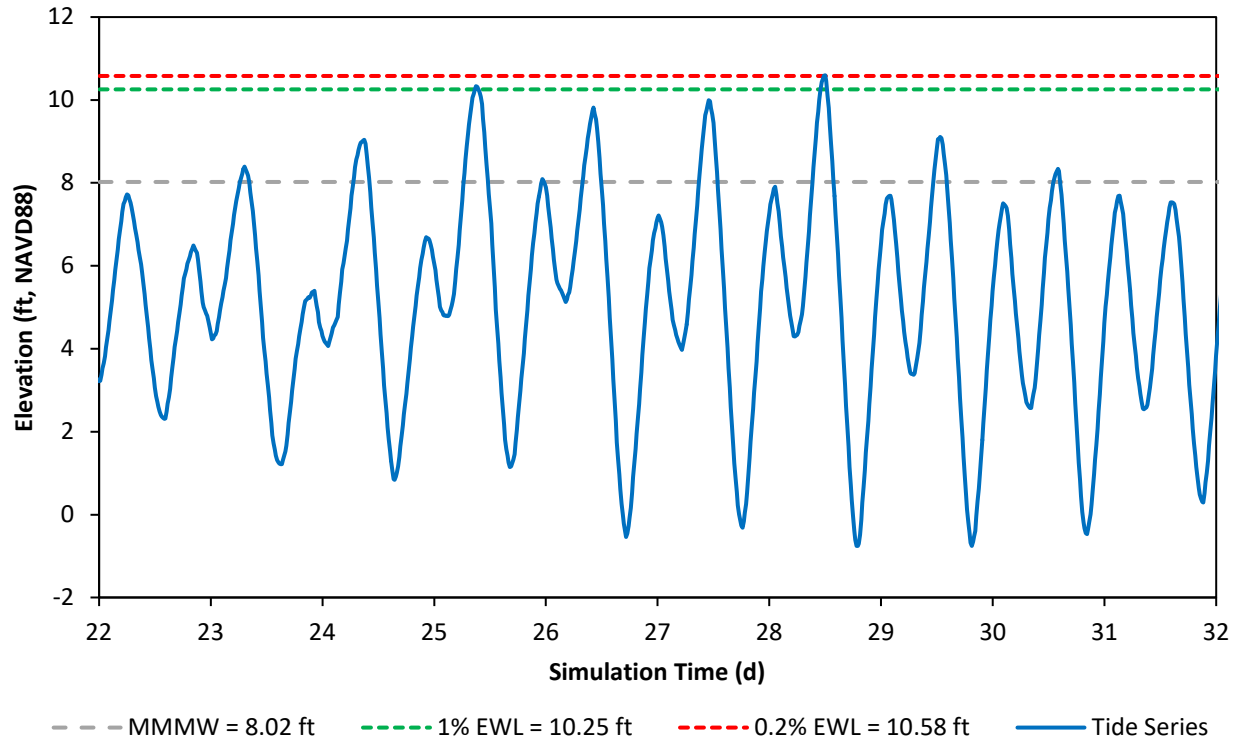


Figure 7. Representative tidal series for the H-Exp Model downstream boundary condition for the 1% annual chance extreme high-water level event. #% EWL (e.g. 1% EWL) represents the #% annual chance extreme high-water level (e.g. 1% annual chance extreme high-water level).

1% ANNUAL CHANCE FLOOD ELEVATION ESTIMATES

The H-Exp Model was used to estimate the 1% annual chance flood elevations within the Elk River Study area. To account for the effects of coincident flood flows for the NF and SF Elk River, and coastal and riverine flood events, the maximum water surface elevation at each grid cell from Event Condition 1 and Event Condition 2 runs were combined into a single layer representing the 1% annual chance flood elevations over the Elk River Study area.

The 1% annual chance flood levels in the Elk River Study area are provided in Attachments 1, 2 and 3, and include the following information on each attachment:

- FEMA special flood hazard zones that include 1% annual chance BFE for Zones AE and VE from the FEMA coastal analysis (blue text and blue polygons); and the Martin Slough detailed study information (red text and solid red BFE contour lines).
- FEMA flood hazard zone inundation extents (orange-red line) for all flood zones (Zones A, AE, and VE).
- Estimated 1% annual chance flood elevation contours (ft, NAVD88) from this study (black text and black dashed lines).
- Estimated 1% annual chance flood inundation extents from this study (black solid line).

These attachments provide 1% annual chance flood elevation estimates over much of the Elk River Zone A areas.

Attachment 2 shows the 1% annual chance flood elevation estimates compared to the FEMA BFE near Humboldt Bay. The FEMA FIS hydraulic analysis for Martin Slough assumed a normal-depth downstream boundary condition which resulted in a BFE of 13 feet over much of the lower Martin Slough area. The 1% annual chance flood elevation estimate from this study for the Elk River is above 15 feet near the confluence with Martin Slough, indicating that the FEMA BFE in lower Martin Slough could be over 2 feet low. Likewise, on the west side of HWY101, the 1% annual chance flood elevation estimates from this study for the Elk River are 1 to 4 feet higher than the FEMA BFE of 10 feet within the adjacent land areas to Humboldt Bay. The FEMA FIS and BFE accounted for Martin Slough flooding only without consideration of Elk River backwater flood effects, or coastal flooding only on the west side of HWY101 without the combined effects of coastal and fluvial flooding from Elk River. The developed H-Exp Model provides Elk River backwater flood conditions that can be considered in lower Martin Slough and combined coastal and Elk River fluvial flood conditions on the west side of HWY101.

These attachments also identify properties outside of the FEMA Zone A boundary that are vulnerable to 1% annual chance flood exposure. It appears this is the case for several residences near the NF and SF Elk River confluence area (Attachment 3).

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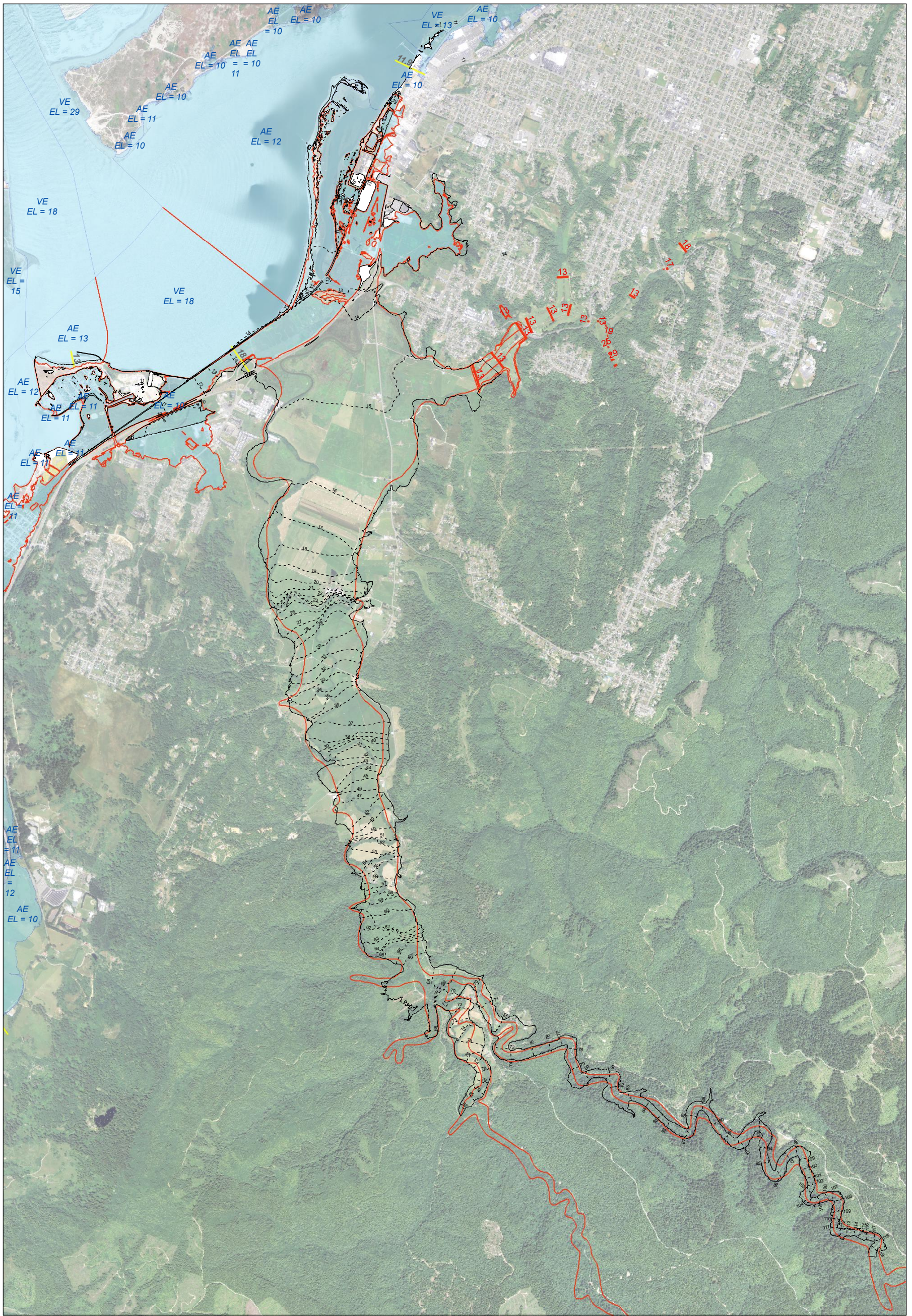
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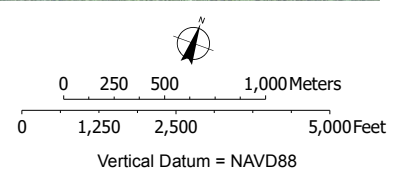
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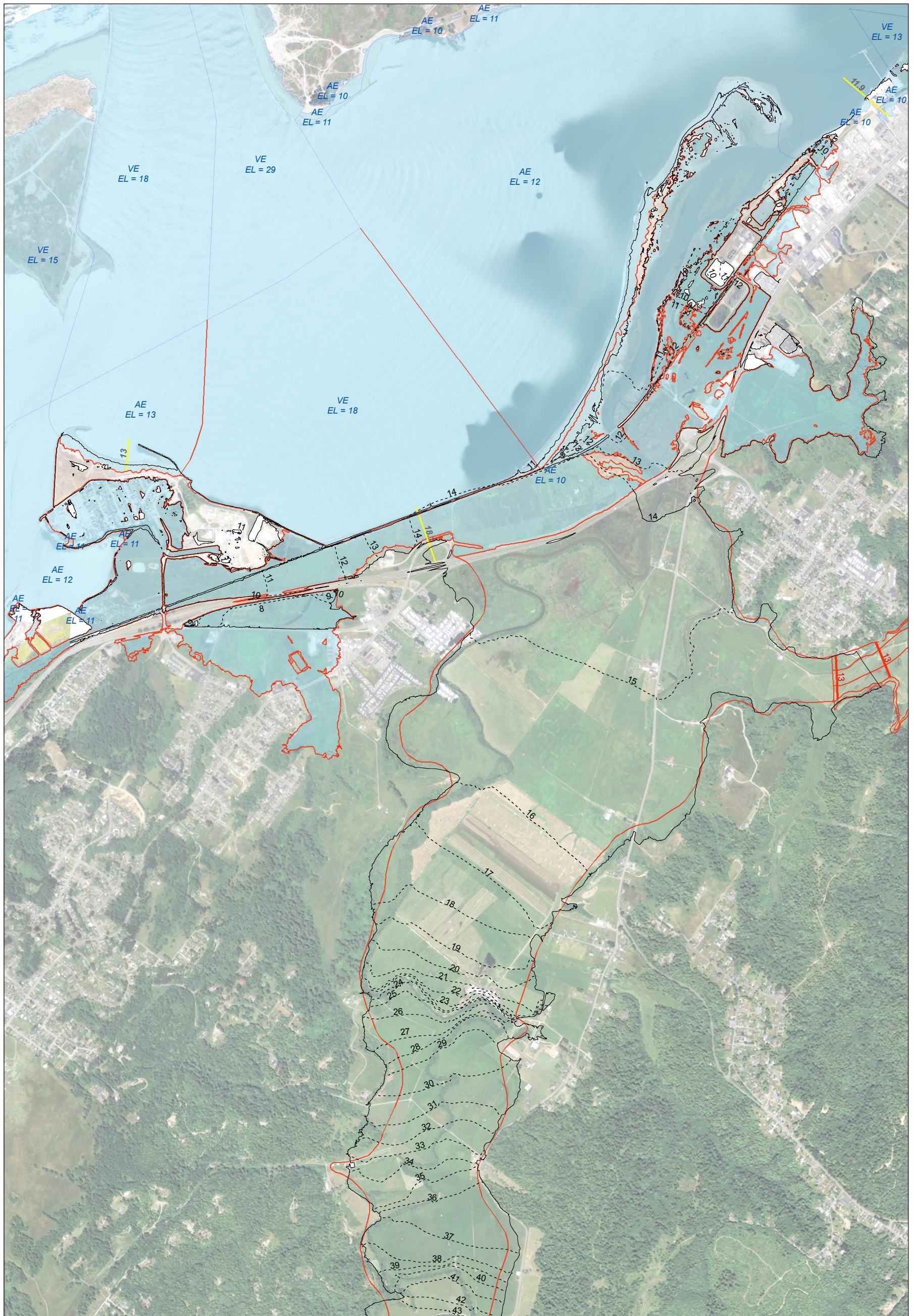
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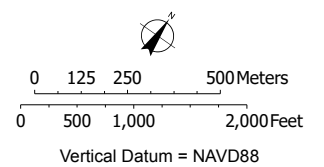
- FEMA Coastal Transect (S_CST_TSCT_LN)
- FEMA Flood Hazard Line (S_FLD_HAZ_LN)
- FEMA Base Flood Elevation (S_BFE)
- FEMA Flood Hazard Area (S_FLD_HAZ_AR)
- Predicted 100-year Water Surface Elevation
- Predicted 100-year Inundation Extent



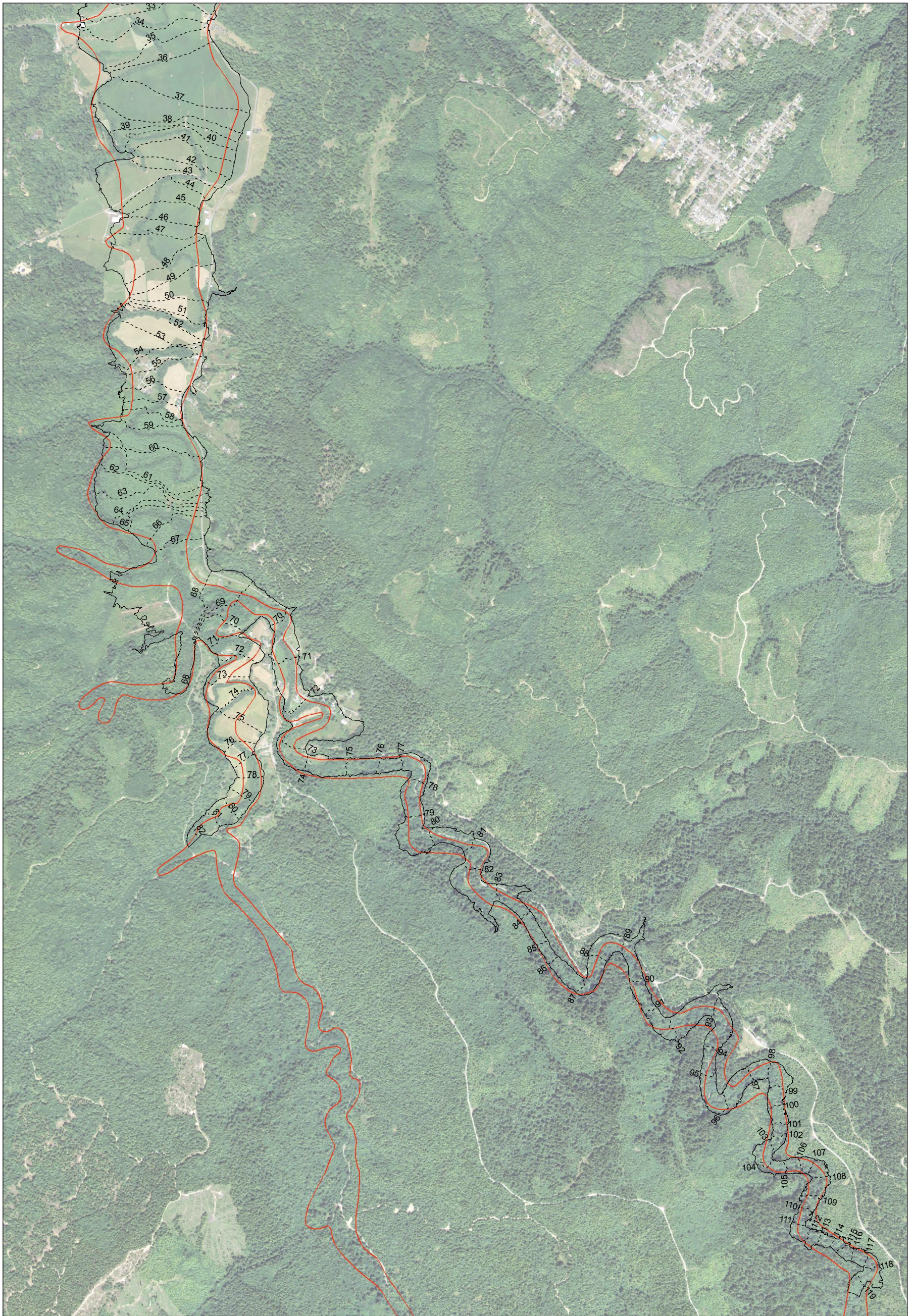
Attachment 1. 1% Annual chance flood elevation estimates in entire Elk River Study area.



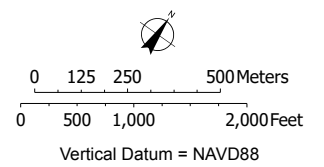
- FEMA Coastal Transect (S_CST_TSCT_LN)
- FEMA Flood Hazard Line (S_FLD_HAZ_LN)
- FEMA Base Flood Elevation (S_BFE)
- FEMA Flood Hazard Area (S_FLD_HAZ_AR)
- Predicted 100-year Water Surface Elevation
- Predicted 100-year Inundation Extent



Attachment 2. 1% Annual chance flood elevation estimates in the northern portion of Elk River Study area.



- FEMA Coastal Transect (S_CST_TSCT_LN)
- FEMA Flood Hazard Line (S_FLD_HAZ_LN)
- FEMA Flood Hazard Area (S_FLD_HAZ_AR)
- - - - - Predicted 100-year Water Surface Elevation
- Predicted 100-year Inundation Extent



Attachment 3. 1% Annual chance flood elevation estimates in the southern portion of Elk River Study area.