



Dave and Nola Watase 1537 Ala Aoloa Loop Honolulu, HI 96819 Email: dwatase@hotmail.com Cel. 808-728-0759

October 22, 2015

Suzanne D. Case, Chairperson State of Hawaii, DLNR P.O. Box 621 Honolulu, HI 96809

Re: Ala Wai Canal Project

Objection to the use of Earth Detention Basins in Palolo Valley

Dear Ms. Case,

Hawaii is a beautiful place. My parents were born in Kohala on the Big Island and in Waimea on Kauai. I grew up on St. Louis Heights and Manoa and Palolo were my stomping grounds. I went to Hokulani School, played Little League Baseball at Kanewai Park, and almost every Saturday from around 1st grade to 4th grade would ride my Schwinn Stingray bike (banana seat and all) down to Kanewai River (Manoa Stream) to catch crayfish, dojos, and guppies with a scoop net. This was before the UH Manoa dorms were built and way before the Hawaiian Studies Center. The taro patch was neglected and didn't resemble anything like what it looks like today. The UH Manoa quarry was a coral gravel parking lot with old telephone poles demarcating the rows of parking with the only visible structures being Klum Gym, track, asphalt basketball court, and a bunch of portables. The tall old wooden stairway leading from campus to the quarry never ceased to amaze me as I would race up and down it with my friends.

Chico's Pizza and P&P Super Market (now the location of City Mill) and the Phillips 66 gas station at the corner of St. Louis Drive and Waialae Avenue are things of the past. Don't remember the specifics but gas was like 30 cents a gallon and they would wipe your windows and check under your hood every time you did a fill up and the attendants knew your name. I used to buy my rabbits foot (don't ask me why but I used to have a collection of those things of all different colors) and peas to shoot in my cheap plastic pellet pistol (because the clay pellets where too expensive) that I would buy at Nakamura's Feed Store and we'd shoot each other playing army or Cowboy and Indians (eye protection and liability lawsuits). My foggy recollection only goes back a short 50 years and is really nothing compared to my parent's generation, their stories growing up on the sugar plantations, living through World War II, and Hawaii as a territory. Their struggles and determination to have a better life has always made me appreciate everything I've been blessed with and usually take for granted.

I grew up when things were carefree and much less structured compared to how I've raised my own children. I got to explore my neighborhood and surrounding mountains and streams in a very natural environment. I can remember seeing most of Waikiki Beach and the ocean from my parent's home before the big hotel boom. I believe any flood mitigation measures should blend into the natural surroundings as much as possible with least impact. I've attached a description, schematics, and renderings of the Waiomao Detention shown on some of the documents for the Draft FS/EIS Ala Wai Canal Project (Exhibit A-1, A-2, A-3, A-4)

I am against the use of Earth Detention Basins for the following reasons:

- 1. The footprint of the earth berm of Detention Basin is too large and other construction techniques using reinforced concrete take up less space.
- 2. Although the height of the earth berm approximately 24', the rock face of the earth filled berm may be 2-4 times the length on each side and when looking up the face from the bottom it will look a lot larger and intimidating even from the top view as shown in the drawing shows the massive amount of space of the footprint.
- 3. Even though rocks from the surrounding area will be used to face the earth filled berm of the detention basin. It will look ugly and out of place. It is located in the middle of a neighborhood residential area and clearly visible. As we all know, maintenance will most likely be lacking and the site will become full of weeds and overgrowth and silt and ponding will develop on the backside of the detention basin.
- 4. The design calls for the excavation of 2,000 cubic yards of material behind the detention basin. This is a huge unnatural and ugly scar that will be replacing several hundred feet of beautiful natural stream bed. The monstrous construction zoned area spans the length of almost two football fields and will have a totally unnatural pit carved out of the mountain side to hold a massive 1,500,000 cubic feet of water. These things are not welcomed sights for anyone to have in their backyard or when looking down the valley from their living room window. The slogan "out of sight and out of mind" holds true because what we don't see we really don't have time to think about. Many of utilities infrastructure are located in conservation and remote locations from water tunnels and pumps, to reservoirs, to electrical transfer stations and their corresponding access roads of which probably 99.9999 percent of the public has no clue of their whereabouts or daily importance to our way of life.

- 5. We favor placing the detention basin on Government owned land. In the case of Waiomao Detention Basin, the State owns over 450 acres of land which generates most of the storm flows. There is a very popular hiking trail and the area has limited access and limited parking. An idea might be to incorporate a parking area that also acts a detention basin, similar to how Kanewai Park's baseball fields are proposed for use as a detention basin. The steam itself should remain untouched in its natural state. This would provide better access and enjoyment of State lands for the public benefit and provide flood protection. It will improve access both for enjoyment as well as maintenance. Trash receptacles that can be accessed by maintenance personnel will better keep the area litter free. Additional measure to reduce the footprint would be to use reinforced concrete in place of the earth berms. The reinforced concrete walls can be designed to hold back the forces of the floodwaters and can be faced to naturally blend in to the environment. Kanewai park has a large retaining wall and it is faced to look like moss rock. The USACE at Fort Shafter uses concrete barriers or dividers that are made of concrete but have a stone facing design.
- 6. We favor a series of smaller detention basins without the use of excavating large unnatural pits to increase the water retainage volume. We feel if designed correctly a series of smaller detention basins could be designed to withhold the same volumes of water. As the bigger the storm the more basins will fill up. Each smaller basins can be designed to spillover as it reaches capacity. The smaller basins can be designed in to a meandering trail that also serves as the access for maintenance vehicles. A series of smaller detention basins meandering back and forth over a stream will provide access to hikers to both sides of the stream. These smaller detention basins can be designed to look like coble stone bridges (except with stone or stone facing matching the location). If hand railings are placed on the smaller basins they can act as debris screens. The controlled outlet area for each smaller detention basin won't necessarily need large debris screens (metal poles embedded in concrete) to filter large tree branches and stumps because each smaller detention basin is designed for spillover (have an engineered spillway that won't erode if used). The stream bed will remain natural and regular maintenance should be done to remove any debris blocking the restricted flow vents of the smaller detention basins. Smaller detention basins made of reinforced concrete, simulating a cobble stone bridge is more applicable to Hawaii as land is more of a commodity whereas on the mainland land is plenty and larger footprint detention basins are more applicable.
- 7. It should be noted that according to the Ala Wai Canal Project FS/EIS there is a rain gauge further up near the property owned by the City and County of Honolulu's Board of Water Supply as well as a tunnel for pumping drinking water. There may already be an access road to some of the areas that potentially could be used to relocate the Waiomao Detention Basin at 2532 & 2550 Waiomao Road. Access roads to Government owned lands can be constructed in coordination with other utility companies that may have a need to access other side further up the valley. What is the BWS has a need to dig another water tunnel to meet the ever growing water demands of Honolulu?

We've attached some picture of Waiomao Stream on our property and of our neighbor's property which would be destroyed if the Waiomao Detention Basin is constructed (Exhibit "B-1", "B-2", "B-3", "B-4". As mentioned in our previous letter, we believe our property TMK: 34016059, located at 2532 Waiomao Road in Palolo Valley provides our family one of a kind beauty and surroundings that is irreplaceable.

We are against using our property for the Waiomao Detention Basin. We are also against any detention basin or flood mitigation measures being with view or close proximity to our property.

We've attached additional pictures of the following:

- (a) Exhibit "C" Rock faced Detention Basin on Associated Road in Fullerton California near where our daughter is going to Optometry School. This detention basin is much longer in width but not much higher than the proposed Waiomao Detention Basin which is 120' wide but this detention basin in Fullerton, CA demonstrates the large footprint and ugliness of this man made structure which really does not fit into the natural environment.
- (b) Exhibit "D" This is one of Heco's electrical transfer stations deep inside Halawa Valley far out of sight from the public demonstrating the slogan "out of sight and out of mind"
- (c) Exhibit "E" This is a detention basin in Moanalua Valley which is next to residential properties and in plain view of dozens of homes above on the hillside. It is unsightly and not something you would want in your backyard instead of a natural stream. Please take note of the silt build up and areas of no vegetation.
- (d) Exhibit "F" This is a detention basin in Niu Valley along Anolani St. which is located and adjacent to a residential home. It is unsightly and has restricted the natural flow of the stream causing ponding. The large detention area is an eye sore and does not blend in with the natural hillside.
- (e) Exhibit "G" This is a detention basin in Niu Valley adjacent to a residential home. What would you rather have behind your home? A naturally flowing stream or a big excavated area the size of a parking lot not well maintained and filled with weeds.
- (f) Exhibit "H" This is a concrete lined detention basin in Hahaione Valley and is adjacent to several homes and looks a gigantic empty swimming pool. This is an example what we do not want in Palolo Valley or something in our backyard or something visible from our homes.
- (g) Exhibit "I" This is an image of a cobble stone bridge found on a Google search. A similar design could be incorporated for a series of small detention basins that leave the stream bed untouched and natural. The opening size would be designed to restrict the flow. This is just a concept of what ultimately could be used further up Palolo Valley on Government land.

(h) Exhibit "J" – This is another image of a cobble stone bridge found on a Google search. Again, just to reinforce the point of how a maintenance road, hiking trail and pathway can be incorporated into a detention basin and naturally fit into the environment. If done correctly it can be an enhancement to the area by providing greater access to the public.

We think you will agree after looking Exhibits of what is being proposed with the Waiomao Detention Basin and then look at the Exhibits of the pictures showing the natural beauty of the Waiomao Stream on our property that you will all agree that a better solution can be found further up into the valley on Government owned land.

We humbly request that you remove our privately owned property TMK: 34016059, located at 2532 Waiomao Road in Palolo Valley as a potential site for the Waiomao Detention Basin.

Very truly yours.

Dave and Nola Watase

Attachements: Exhibit "A-F"

Cc: Gayson Ching, DLNR
Derek Chow, USACE
Ann H. Kobayashi, Honolulu City Council
Calvin Say, State of Hawaii, Representative
Les Ihara, State of Hawaii, Senate

Palolo Valley

Measure No. 8: Waiomao Debris and Detention Basin

a. Description of the measure

Earthen berm, approximately 24' high and 120' across, with an arch culvert to allow small storm flows to pass. Construct a concrete spillway above culvert, with riprap on upstream and downstream side. A 20-foot-wide area around the perimeter of the berm will be cleared and maintained. Excavate approximately 2,000 cubic yards of soil to provide required detention volume. Existing Waiomao USGS gauging station will be demolished during construction of this measure.

b. Why this is the best location for the proposed measure

Macrositing - Needs to be in upper watershed to capture peak flows, but as close to urban area as possible. Could not go higher in watershed because of topographic access, and cultural sensitivity in higher areas.

Micrositing – Location provides access to public roads, and will allow feature with least amount of earthwork.

- c. What the area looks like now: See Figure 31 (access to preferred location was not granted by landowner)
- d. What will it look like with the measure in place: See Figure 32

e. What is the area used for now

Proposed location is a forested upper watershed, adjacent to residential area; no formal recreational access; no agricultural or commercial practices within footprint.

f. What can it be used for after the measure

Normal stream flow will not be affected; will impound water and debris only during flood conditions (pooling will last for less than 12 hours); will require occasional maintenance; land use will not change; no significant changes to access within project vicinity.

g. Will the measure only be used in the event of a large storm event, or will it also be utilized for smaller, frequent storm events

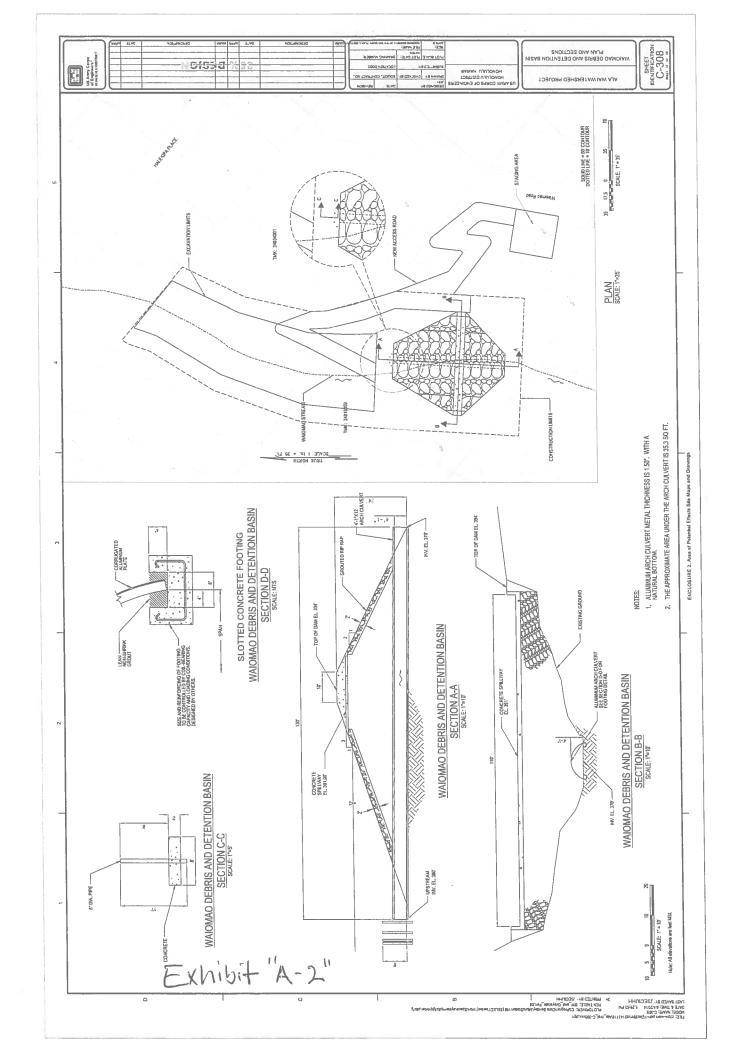
This measure will be used for all flood events, but would only impound water (pool in basin) above a five-year flood event.

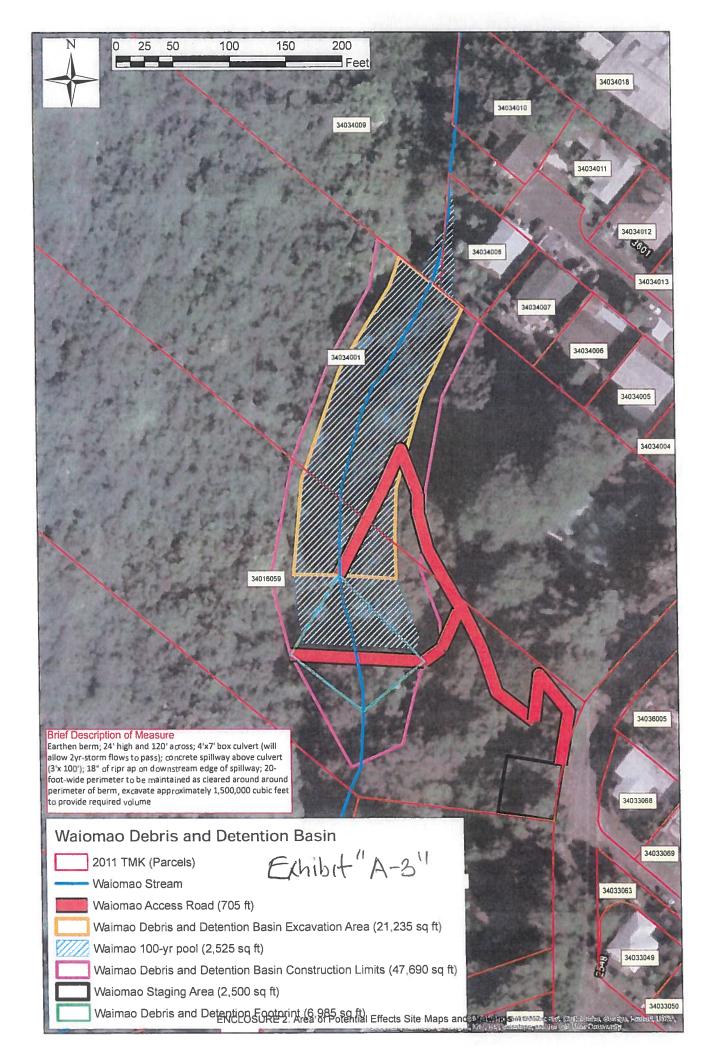
h. Flexibility of proposed measure location

Location of the Waiomao Debris and Detention Basin is flexible. Design can microsite upstream/downstream to avoid resources.

i. Direct APE acreage: 1.3 acres

Exhibit A-1"





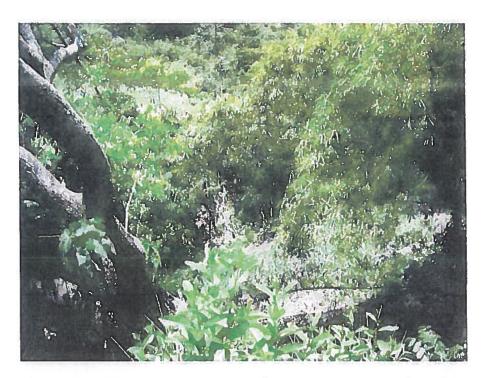


Figure 31 Photo of Waiomao Debris and Detention Basin at Present

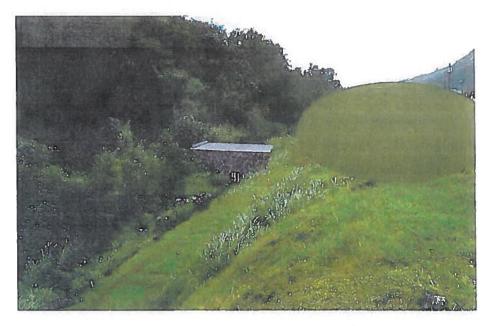
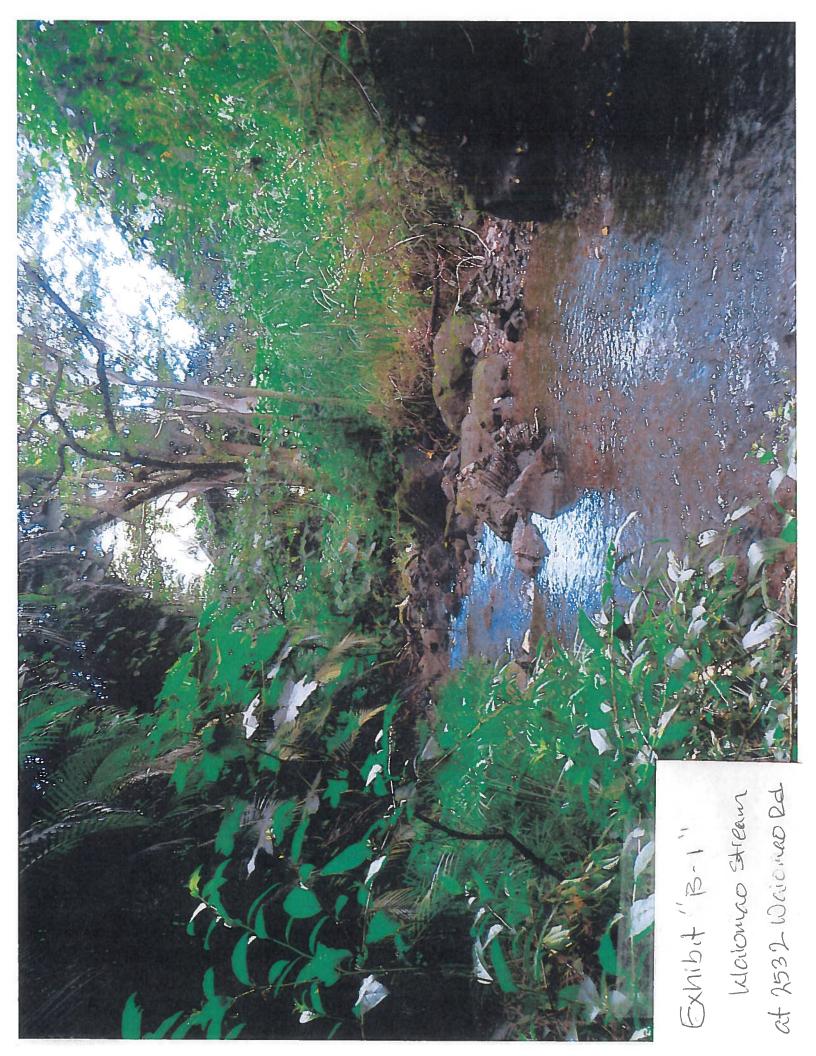
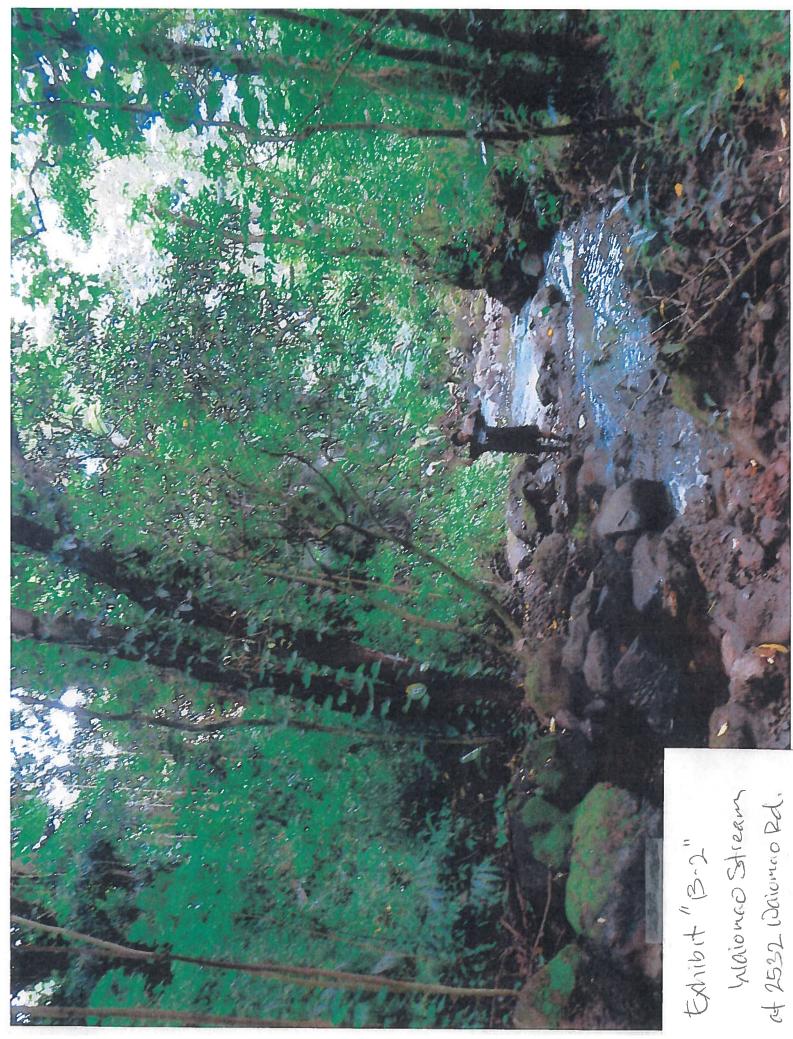


Figure 32 Conceptual Rendering of Waiomao Debris and Detention Basin with Measure (modified from Pukele detention basin measure)

Exhibit "A-4"





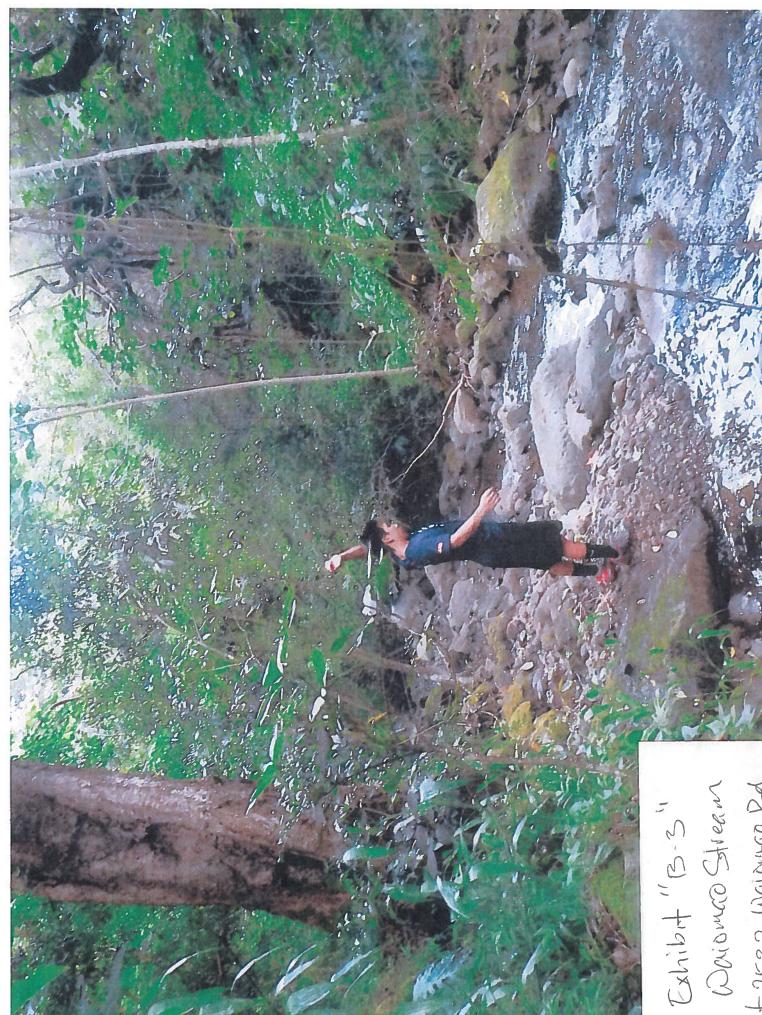
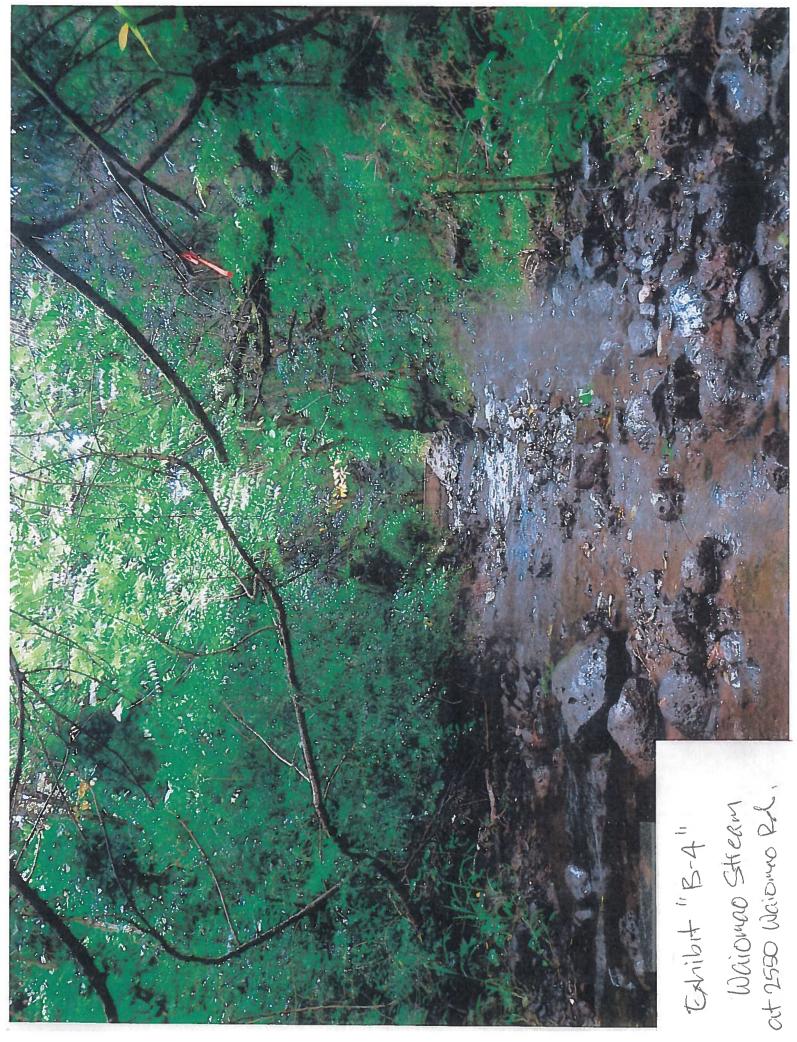


Exhibit "B-3" Doionco Stream at 2532 Walding Pd.



© 2015 Microsoft Corporation Defenten Basin Fullerton, CA Exhibit C

