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DEPARTMENT OF LAND AND NATURAL RESOURCES  
**COMMISSION ON WATER RESOURCE MANAGEMENT**  
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STAFF SUBMITTAL

for the meeting of the  
COMMISSION ON WATER RESOURCE MANAGEMENT

February 15, 2006  
Honolulu, Hawaii

Application for an After-the-Fact Stream Channel Alteration Permit (SCAP-OA-390)  
and Declaratory Ruling  
City and County of Honolulu, Department Facility Maintenance  
Wailupe Stream, Aina Haina, Oahu  
(TMK: 3-6-005, 12, 15, 16, 17)

APPLICANT:

City and County of Honolulu  
Department of Facility Maintenance  
1000 Uluohia Street, Suite 215  
Kapolei, HI 96707

LANDOWNER:

Same

SUMMARY OF REQUEST:

The applicant requests an after-the-fact stream channel alteration permit for excavation and shaping of approximately one mile of the bed and banks of Wailupe Stream channel. The alteration is to provide better drainage capacity of the channel to prevent flooding.

LOCATION: See Exhibit 1.

BACKGROUND:

On August 18, 2005, a Wailupe resident submitted a complaint about excavation and shaping of the banks of Wailupe Stream. Staff visited the site and noted that boulders in the stream were pushed up onto the banks leaving the bed flat, slowing the stream flow. The complainant indicated that a successful remedy would be to have the channel with water pools and shade boulders for native and endangered stream species, e.g. O'opu Nakea (*Awaous guamensis*).

Armoring the stream bank should be augmented with plantings to prevent erosion and protect adjacent private properties while retaining the natural stream bottom. After the site visit, staff determined the work was not consistent with Declaratory Ruling No. DEC-ADM99-S8 issued to the City and County of Honolulu on March 19, 1999. This Declaratory Ruling required stream channel alteration permits for dredging work greater than 500 cubic yards and taking more than two weeks to complete. Staff requested a formal written complaint from the complainant and issued a 'Notice of Unpermitted Activity' to the applicant requesting an after-the-fact application for a stream channel alteration permit.

#### DESCRIPTION:

The applicant excavated the bed and banks of Wailupe Stream and pushed boulders and cobbles high onto the banks of the stream for approximately one mile of Wailupe Stream between Kalaniana'ole Highway and Ani Street (See Exhibit 2). During an initial site visit on August 11, 2005, staff observed only small shallow standing sheets of water in the entire reach of the altered stream channel (See Exhibit 3). Boulders and cobbles were pushed up against the stream bank leaving the bed of the channel with only soil and gravel (See Exhibit 4). The banks were approximately 15 to 20 feet deep and approximately 15 feet wide. There was no riparian vegetation in the excavated stream channel except for minor vegetation at the top of the bank. The amount excavated was far more than the 500 cubic yards criteria in DEC-ADM99-S8.

#### ANALYSIS:

It should be noted that Wailupe Stream is being considered for channelization by the City and County of Honolulu and the Department of Land and Natural Resources through the U. S. Army Corps of Engineers. The U. S. Army Corps of Engineers is presently re-scoping this project. Therefore, stream conditions are likely to change in the future, and this analysis only applies to stream conditions during the interim, from now to when the channel is modified.

There are two important considerations which must be addressed regarding the disposition of the after-the-fact application for a stream channel alteration permit.

The first consideration is the jurisdictional aspect relating to the need for a stream channel alteration permit. Initially when staff contacted the applicant about the complaint, the applicant indicated Wailupe watercourse is not a 'stream' because the watercourse was rerouted from its natural alignment by a private developer back in the 1950s as part of the 'Aina O Haina' subdivision, and dedicated it to the City. The applicant also indicates that the trapezoidal shaped channel after the excavation follows the as-built construction plans for the subdivision.

However, using the definition of stream and stream channel in Hawaii Revised Statutes, §174C-3, the Wailupe watercourse conforms to the definition of "stream". Wailupe Stream is a 'natural watercourse' with a 'defined bed or channel'. Also, the definition of "stream channel" includes a clause which states that realigned channels are still streams.

The definition of stream and stream channel are as follows:

*“Stream” means any river, creek, slough, or **natural watercourse** in which water usually flows in a **defined bed or channel**. It is not essential that the flowing be uniform or uninterrupted. The fact that some parts of the bed or channel have been dredged or improved does not prevent the watercourse from being a stream.*

*“Stream channel” means a natural or artificial watercourse with a definite bed and banks which periodically or continuously contains flowing water. **The channel referred to is that which exists at the present time, regardless of where the channel may have been located at any time in the past.***

Staff determined that a stream channel alteration permit would normally be required for the clearing because Wailupe watercourse is a stream, and the quantity of cleared stream material exceeded the 500 cubic yards established in Declaratory Ruling DEC-ADM99-S8. However, considering the fact that the applicant is obligated to shape the Wailupe Stream channel as part of an early Aina O Haina subdivision approval prior to the Water Code, staff believes a Declaratory Ruling exempting the need for a stream channel alteration permit would be appropriate.

The second consideration concerns the excavation and contouring of the stream bed and banks by the applicant. Staff acknowledges the applicant’s need to clear the stream to prevent flooding. However, staff also concurs with the complainant that the clearing could have been done in a manner that would provide pools, shade, and boulders for better habitat and migration of aquatic life.

Responding to this complaint, staff conducted two site visits to Wailupe Stream, one visit during the dry season shortly after the excavation work (August 11, 2005), and one visit during the wet season shortly after a storm flow (December 2, 2005). Exhibit 3 shows the stream channel shortly after the excavation and shaping of the stream channel. Note that there is very little water during dry periods. There were no deep, standing pools (See Exhibit 4). Staff did not observe native fishes during this initial site visit. Exhibit 5 shows the stream channel after a heavy storm. Note that the cobbles and boulders are deposited toward the center of the stream channel providing habitat and a migration path for native fishes. There were many standing pools between the boulders and cobbles. Vegetation was being reestablished on the upper parts and the toes of the banks. Staff observed numerous O’opu Nakea (*Awaous guamensis*) in several pools during the second site visit.

After observing the effects of the channel excavation, and reestablishment of aquatic life, staff believes adverse effects of excavating and shaping the Wailupe Stream channel are temporary until a high flow redistributes the cobbles and boulders in the bed of the stream channel. However, staff also believes a practical alternative to minimize the adverse effects would be for the applicant to shape the channel in such a manner that would provide stream flow along the toe of the bank. This could be accomplished by slightly sloping the bed channel toward the boulders and cobbles along one of the toes of the banks to create pools and provide shade for migrating aquatic life.

Regarding comments from the reviewing agencies, the Department of Health recommends that site specific Best Management Practices be implemented to prevent pollutants from entering State waters. Staff considered having the Commission approve a stream channel alteration permit with a special condition requiring the applicant to prepare and implement a BMP as part of the permit. However, considering this stream barely flows during the dry season, staff decided that it would be more appropriate for the applicant to work directly with the Department of Health to plan and implement practices to minimize pollutant discharges. Working during the dry season, as practiced by the Department of Facility Maintenance, should substantially minimize siltation.

The Division of Aquatic Resources does not object to the reshaping of the stream to minimize the risk of flooding.

RECOMMENDATION:

That the Commission adopt a Declaratory Ruling, DEC-ADM06-S11, exempting the excavation and reshaping of Wailupe Stream, Aina Haina, Oahu, from the requirement for a stream channel alteration permit provided that the applicant:

1. Shapes the channel in a manner required by the subdivision agreement between the Aina O Haina subdivision and the City and County of Honolulu;
2. Configures the bed of the channel directing streamflow toward one of the toes of the banks to provide shade and pools for aquatic life; and
3. Coordinates with the Department of Health to address and implement practices to minimize water pollution.

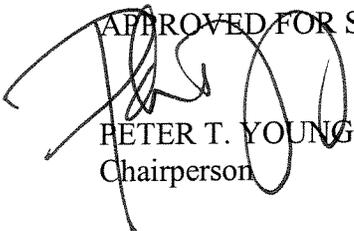
Respectfully submitted,



Dean A. Nakano  
Acting Deputy Director

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|-------------|---|---|
| Exhibit(s): | 1 | Location Map                                    |
|             | 2 | Altered Stream Reach                            |
|             | 3 | Wailupe Stream Channel Shortly After Alteration |
|             | 4 | Stream Flow Shortly After Alteration            |
|             | 5 | Wailupe Stream Channel After Major Rainfall     |

APPROVED FOR SUBMITTAL:

  
PETER T. YOUNG  
Chairperson