

Hōkio Dump Consent Review

Pataka JG Moore

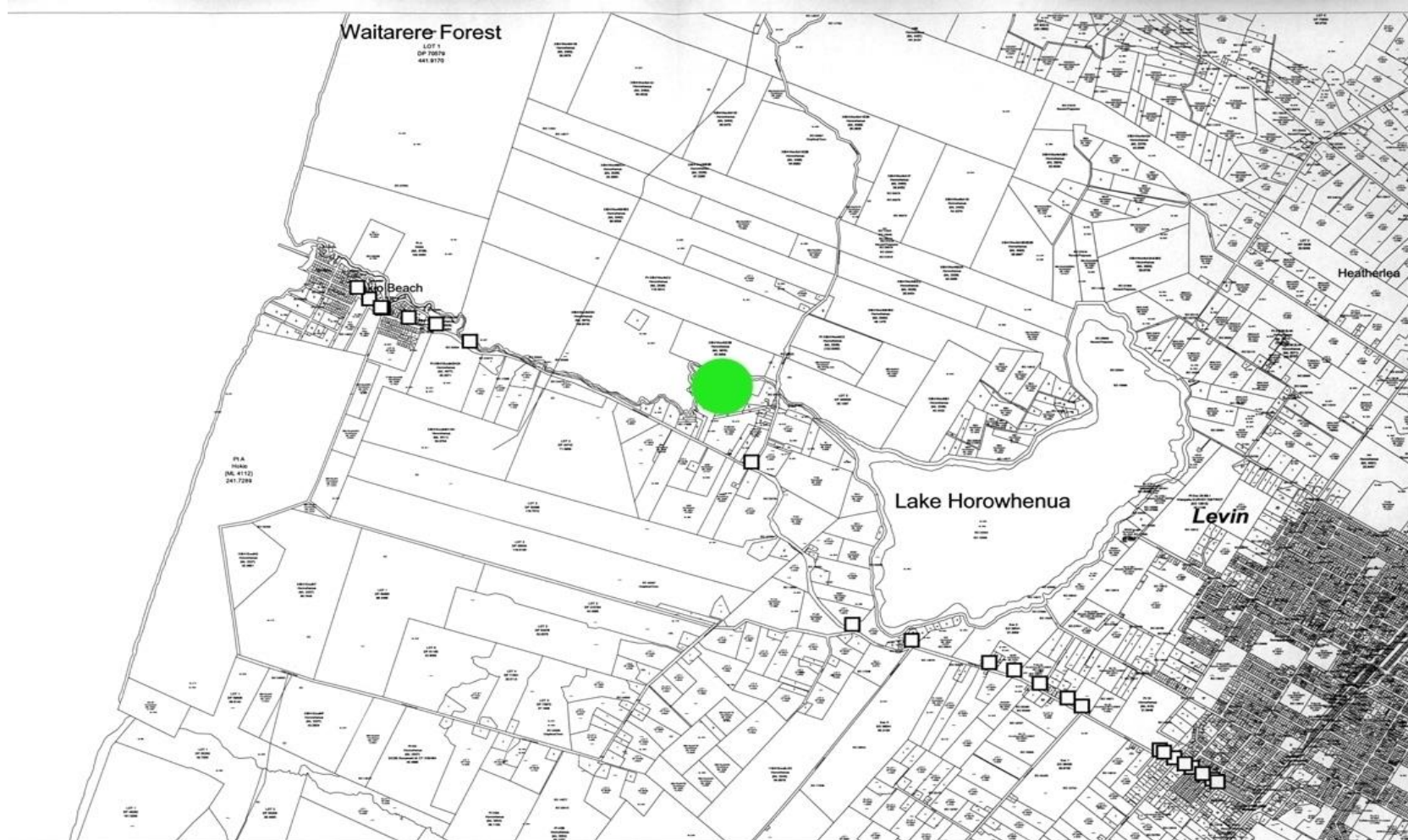
Levin

21 Sep 2016

Hōkio

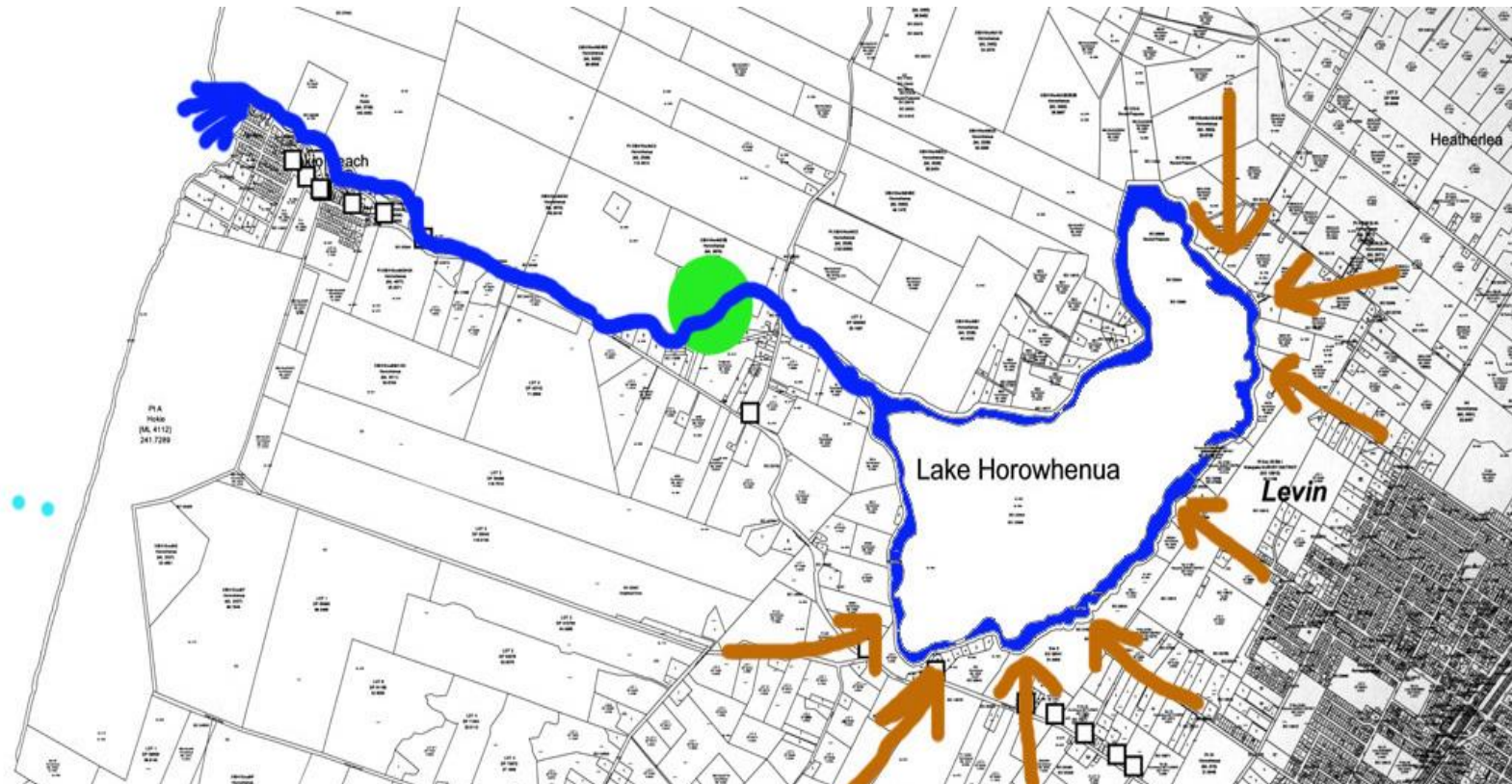
- Hōkio has a history of pollution concentration
- Locals (both Māori & other groups) have opposed pollution
- In the past it has been regarded as unproductive Māori-owned land; subsequently used & abused
- Council have targeted this area for all types of waste disposal – examples follow

Ngātokowaru Marae



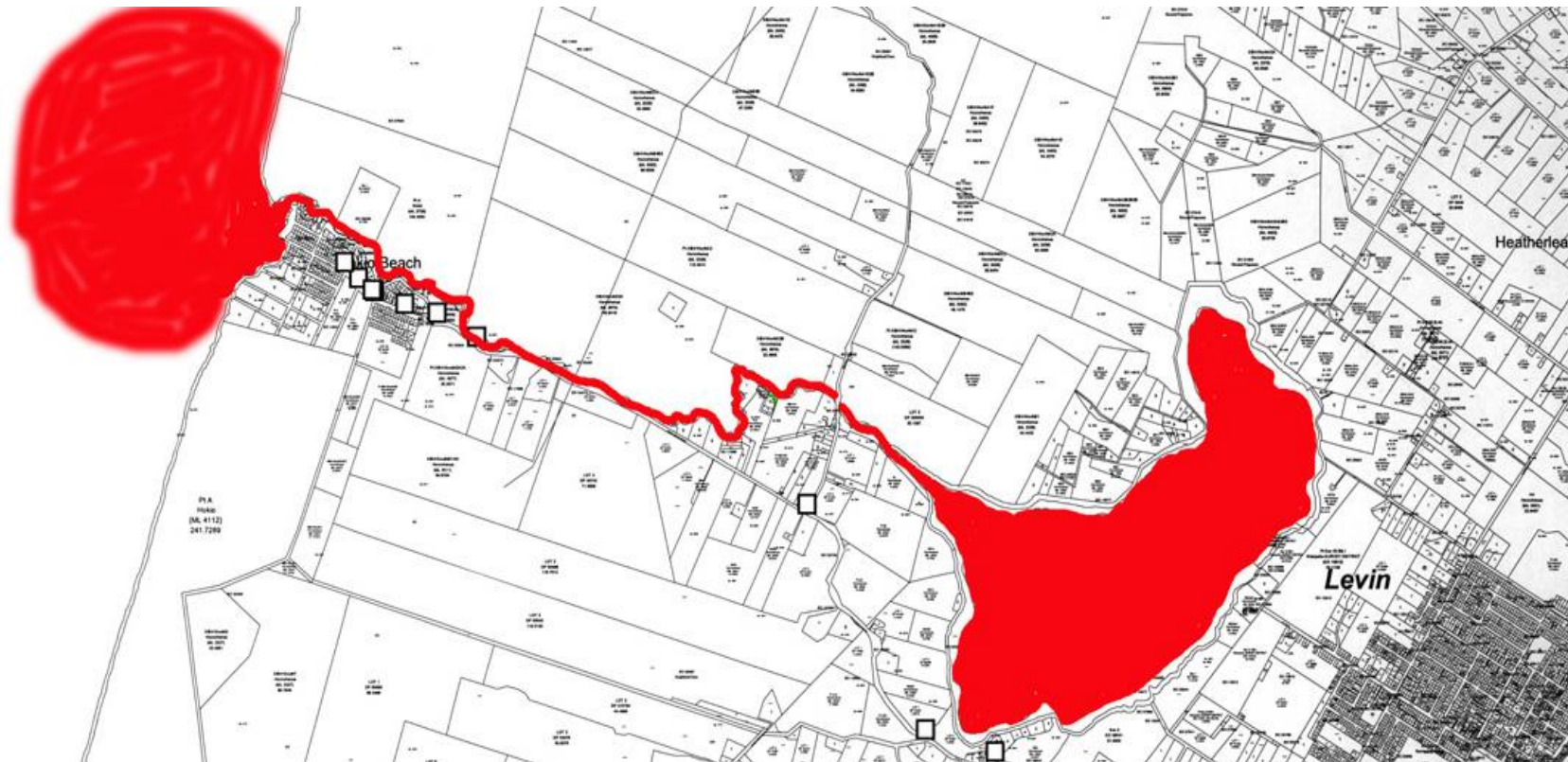
Hōkio Stream dredging

- 1947 - Hokio stream dredged and Lake Horowhenua level lowered by about 2 metres. Stream dynamics and ecology radically altered and intensive agricultural activity in the catchment caused increased fertiliser runoff and nutrient enrichment and eutrophication.



Lake Horowhenua

- 1952 – Levin’s sewage to Lake Horowhenua
- Freshwater and marine environment degradation.
- 1970s – Hōkio Residents & Ngāti Pareraukawa opposed the discharge of sewage into the lake
- Again opposed plan to discharge sewage to the Hokio Stream



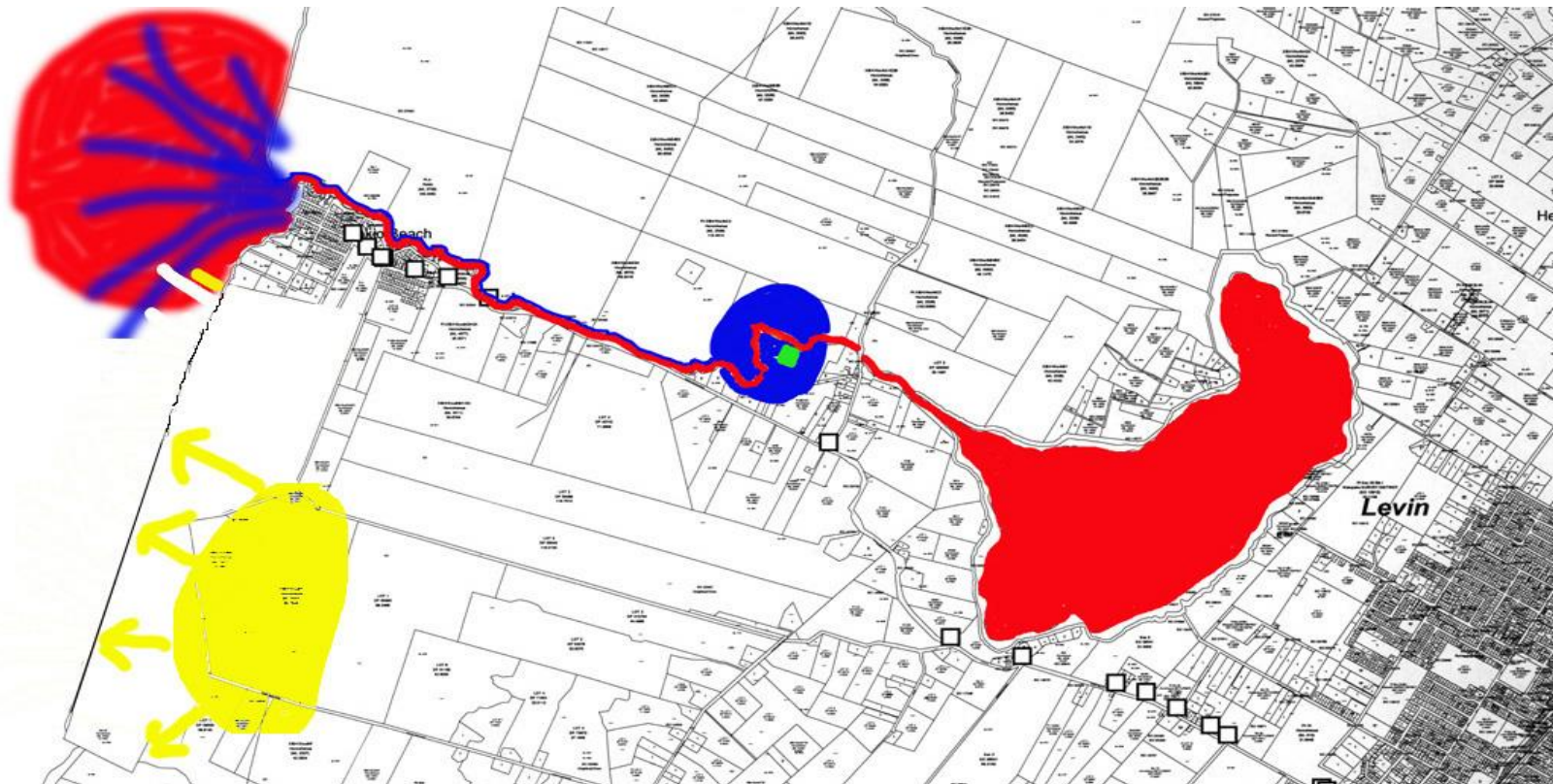
Hōkio Piggery

- 1950s – 1999; the Knight (Biersteker) Piggery expanded from 15 breeding sows to 1200.
- Offensive discharges into Hōkio stream
- Odour – repulsive
- Failed to gain consent in 1999 – piggery closed.



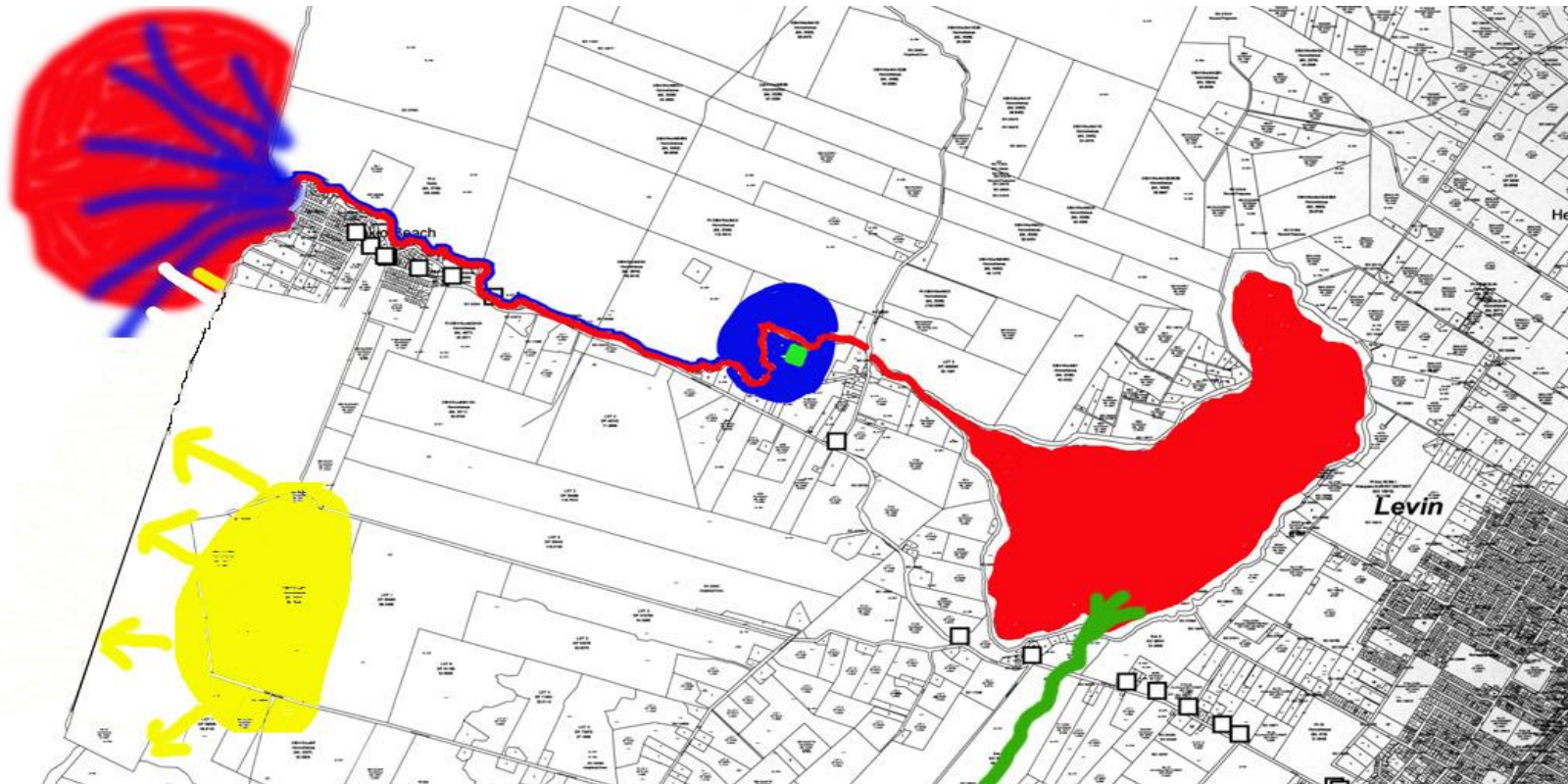
The Pot

- The Pot 1986 - Land-based effluent disposal
- Although it has merit; pollution of natural environment is occurring
- Increase in population; no increase in land area – proportionate increase required



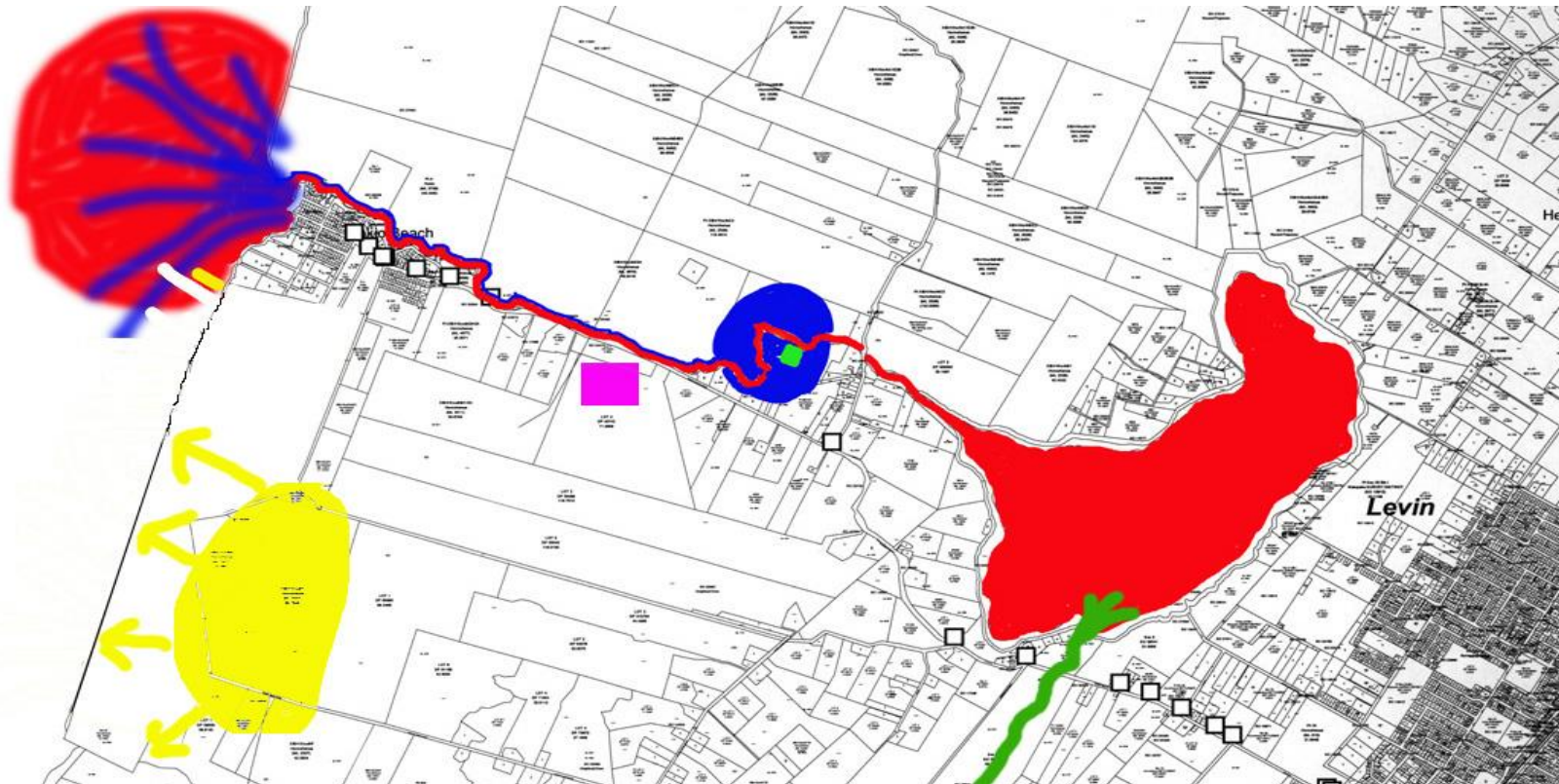
Arawhata Stream

- Effects of intensive agriculture and horticulture
- Arawhata stream – nutrient levels are very high
 - Feeding Lake Horowhenua, promoting algal blooms & weed growth



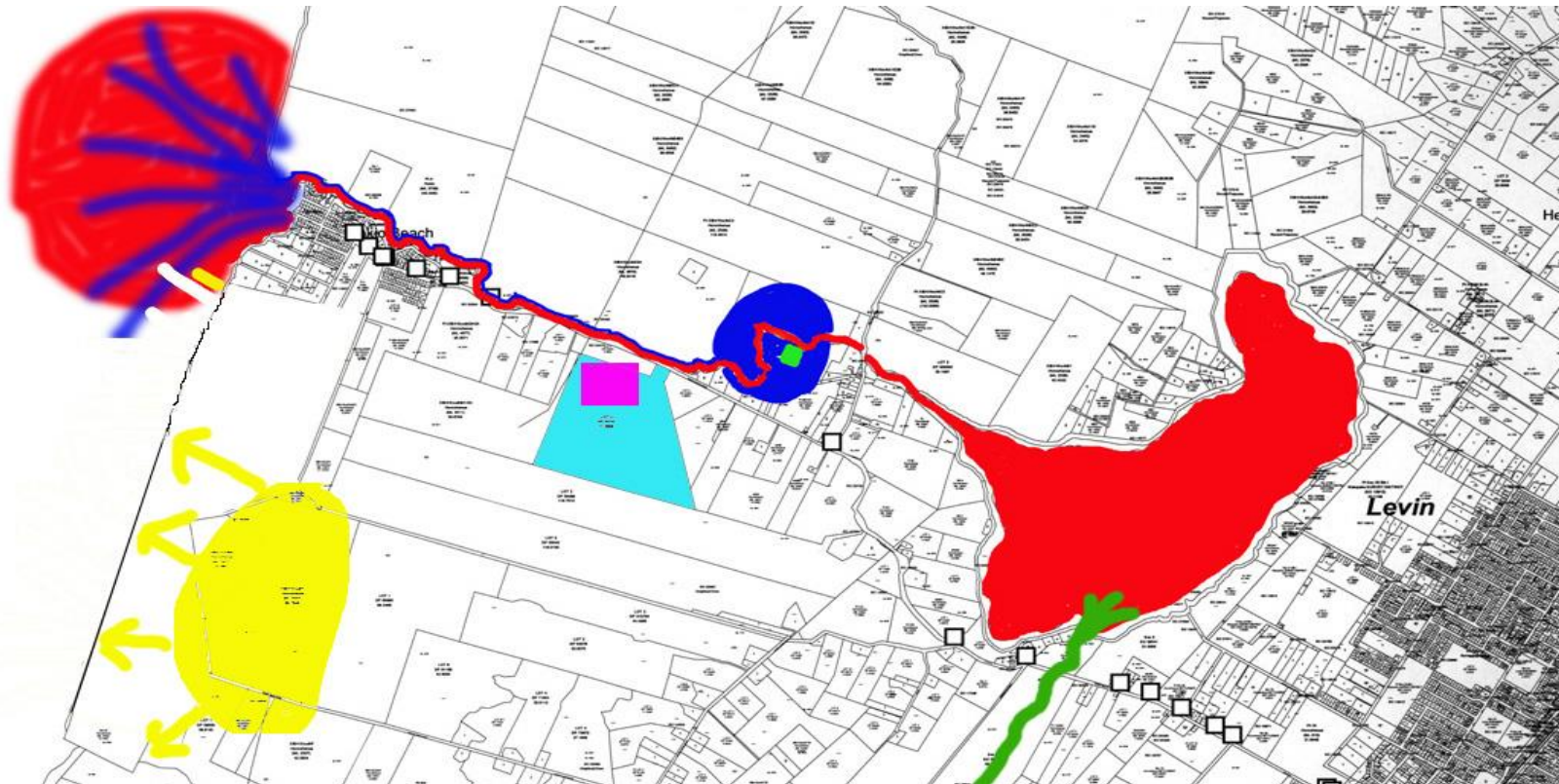
Old Dump site

- 1960/70s – Town Dump Site introduced to Hōkio
- Ngāti Pareraukawa unhappy with decision of site location
 - Unsatisfactory porous sand, unlined dump-site
 - dumping un-monitored (hazardous waste)
- leachate being detected now – council reluctant to admit responsibility



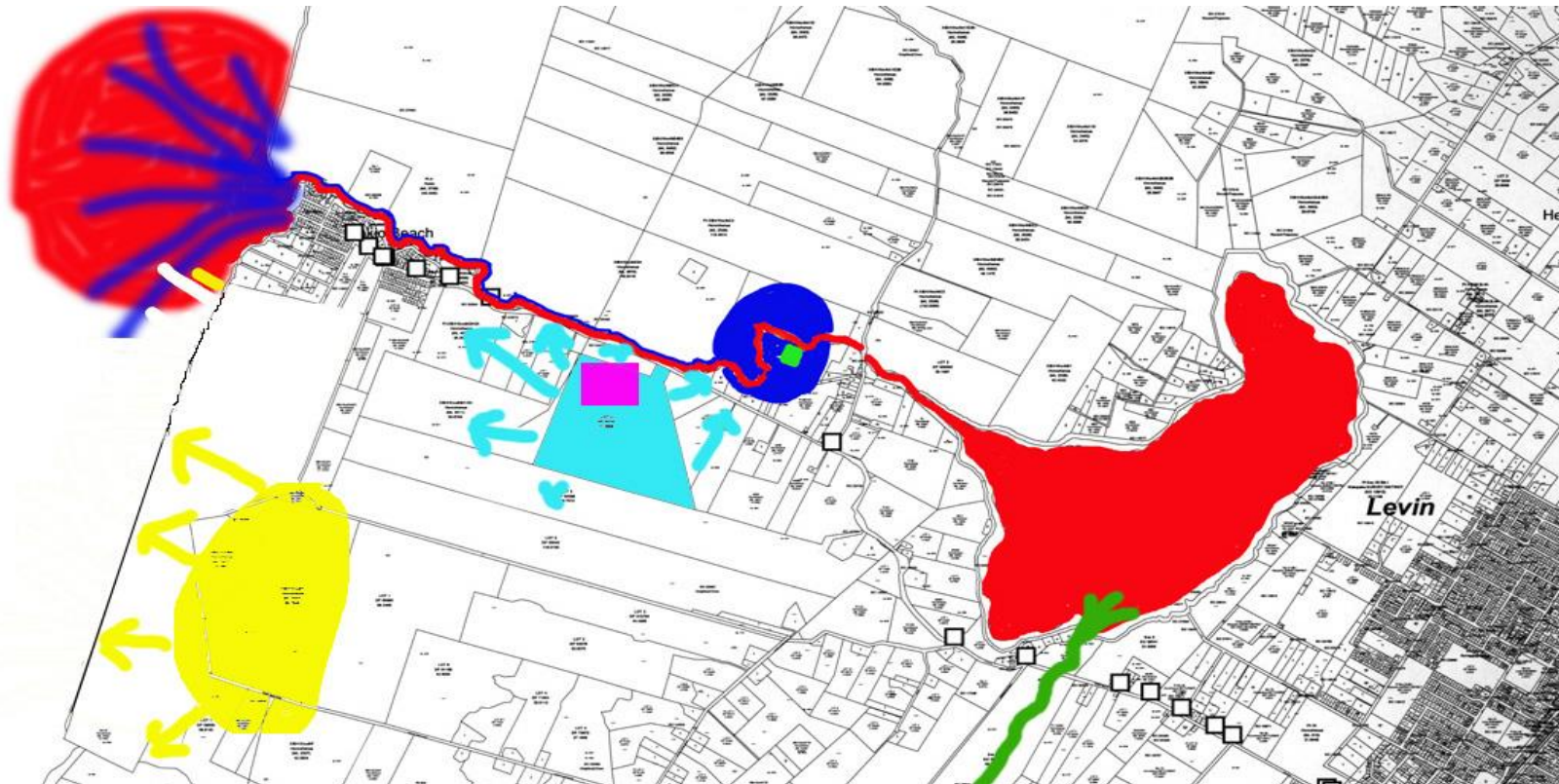
New Dump - 2004

- Ngāti Pareraukawa not directly consulted
- Strongly opposed by many groups; private landowners, Muaūpoko, businesses, residents, others
- Consent conditions not complied with – odour, NLG



Bore contamination

- Recent tests have shown that the plume of leachate is contaminating ground water
- Council ignoring their obligation to protect Hōkio community
- Options for Hōkio residents & Ngātokowaru Marae
 - Alternative water source



Landfill site selection

- Sited on highly porous dune country.
- Surrounded by domestic bores and significant wetlands (Adkin 1948:Map VII).
- Amongst areas of archaeological/cultural significance. (Adkin 1948:Map VII).
- In close proximity to marae.
- Amongst Internationally significant dune systems stretching from Paekakariki (sth) to Whanganui (nth), inland to Rangiotū (east).
- Dr D. Horne – “I see little consideration of the ability of sands...to sustainably filter the applied effluent.” (Dec 2004).

RMA REQUIREMENTS

- Fourth schedule section 1b. The activity “should include...a description of any **possible alternative locations** or methods for undertaking the activity.”

Council Response

- Ged Shirley, HorizonsMW. “I can confirm that an alternative sites investigation would have been looked at by the HDC prior to a decision being made by them to adopt the new landfill site, as we know it.” (6 Oct 2004).
- RR Nicholson, HDC. “The site was designated for use [as] a landfill and so there was **no requirement to seek alternative sites.**” (17 Nov 2004).

Ecological significance

- Internationally significant dune system stretching from Paekakariki (sth) to Whanganui (nth), inland to Rangiotū (east).
- NZ has lost 90% of wetlands (Horizons MW).
- This site is surrounded by sensitive wetlands:
 - Waiwherowhero lagoon, Waiwiri swamp, Paenoa swamp, Okotore lagoon, Hokio wetlands, Arawhata swamp, lake Horowhenua, Lake Papaitonga and others (Adkin 1948:Map VII).

Archaeological significance

- Many areas of cultural significance in this area for both iwi, specifically the area known as 'Whānau Pani' (Adkin 1948:Map VII).
- Many unregistered sites, but no less-significant to Māori.
- 'Te Ohenga' – burial grounds as noted in '*Horowhenua*' (Adkin 1948:263).
- This large site is recorded on the NZ Archaeological Association database as S25/69 (recorded in 1995).
- These areas have been disregarded by the HDC.

Irrigation of leachate

- Dr Dave Horne – Massey University has analysed the Leachate Management Plan and outlines the following:
 1. “I am concerned about the effects of land application of heavy metals, biocide, clinical and medical waste, non-halogenated organic compounds, organo-halogens and pharmaceutical wastes on soil organisms and the quality of surface and ground waters.”
 2. “application depths of 50mm per irrigation event is too large for this soil type” & that the “application depth is always going to exceed the soil moisture deficit”.

3. Concerned about the “impact of the application of effluent to sand on the nearby; Hokio Stream, Waiwiri Stream, Lake Horowhenua, Lake Papaitonga...[near a] marae, significant wetlands, waahi tapū, inward from pipi beds at the coast and domestic bore-water users including Hokio Beach residential area”.
4. “no mention of the possible risk of hydrophobicity developing on these sandy soils particularly the dune phases...[which] increases the risk of drainage and leaching to the ground water”.
5. But; “sands are often suitable soils to apply effluent to because they are free draining and so allow irrigation throughout the year.”
 - Although it has merit, it often fails to filter nutrients and toxins
 - Alternative sites investigation would have revealed that anywhere would be more appropriate than Hōkio dune system.
 - Alternative irrigation areas inappropriate
 - Old landfill

Contingency measures

- Lack of detail for contingency measures which are not required by the act – but are required by the residents
- Preventative approach – NOT REACTIVE!
- Leachate plume spreading
- Marae & private bore users – unsure
- Expectations of bore uses
- Unanswered questions: once leachate is detected in ground water and/or Hōkio Stream;
 - How quickly will the dump be shut down?
 - When will the waste be removed?
 - Where will the leachate then be applied?
 - What water do we use in the meantime?
 - How will we safeguard our ground water, Hōkio Stream and coastal area?
 - What compensation can we expect?

Our concerns

1. **Consent Reviews** – very restricted
2. **Consultation process** – environmental effects missed by council due to substandard consultation
3. **Old Landfill** – uncapped, mismanaged, leachate plume
4. **New landfill** – site location, leachate irrigation, pollution importation of waste,
5. **Ecological damage** – Hokio stream, sand dunes, beach area, land surrounding the dump,
6. **Cultural Damage** – by damaging Hokio, our interaction with Hokio is limited
7. **Spiritual damage** – damaging the area will have an impact on our wairuatanga and mauri of the stream and people