

生物多様性を壊す巨大ダム建設(愛知県東部) 日本政府・愛知県は政策転換を！

～生態系・生物多様性を無視した開発・産業政策から
持続可能な社会をめざす統合政策へ～

設楽ダムの建設中止を求める会

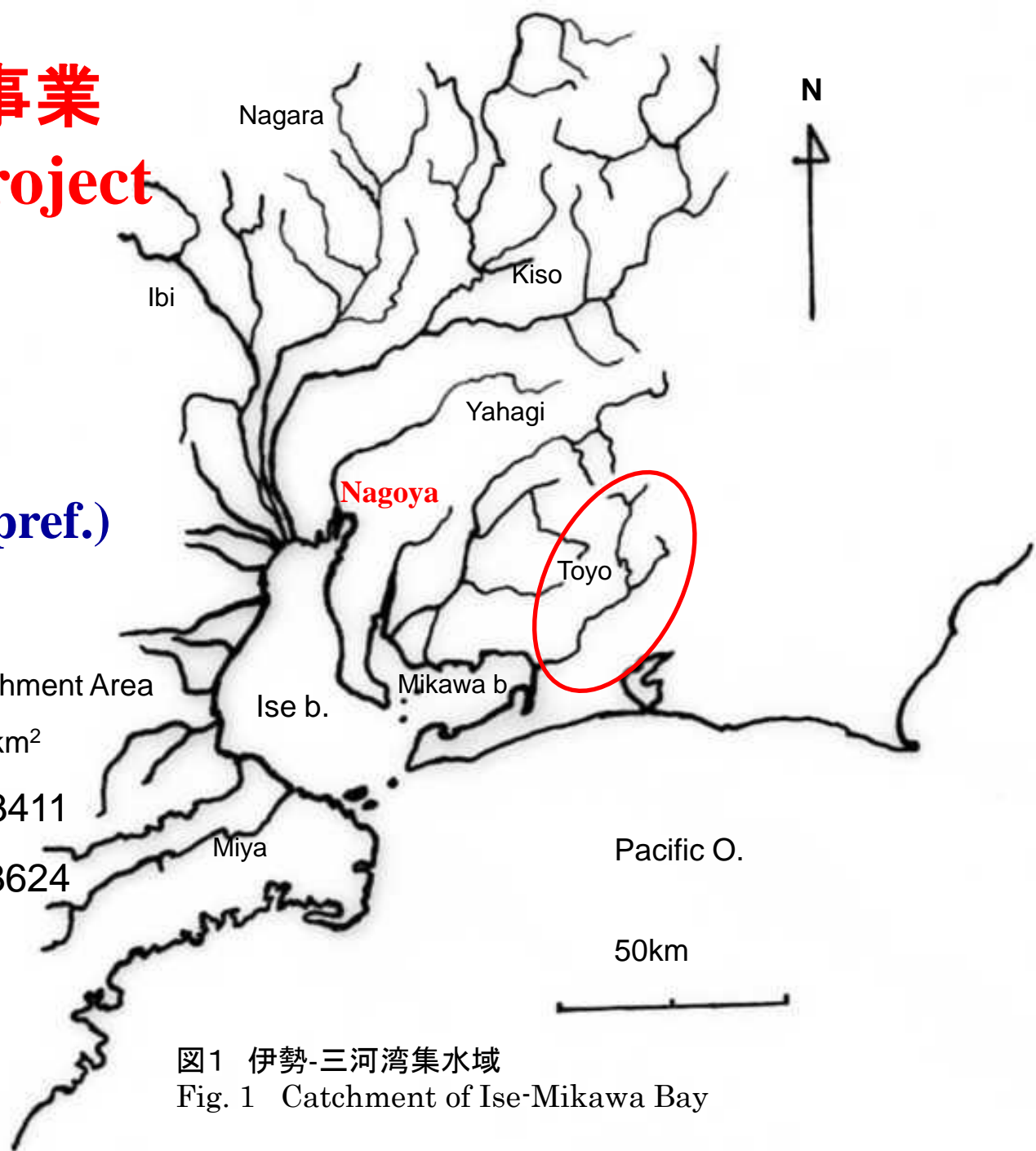
Big dam construction breaks biodiversity in the east area of Aichi prefecture. The government of the state and local government must change a policy

設楽ダム建設事業 Shitara dam Project

豊川水系 (77km)

Toyogawa river

(East area of Aichi pref.)



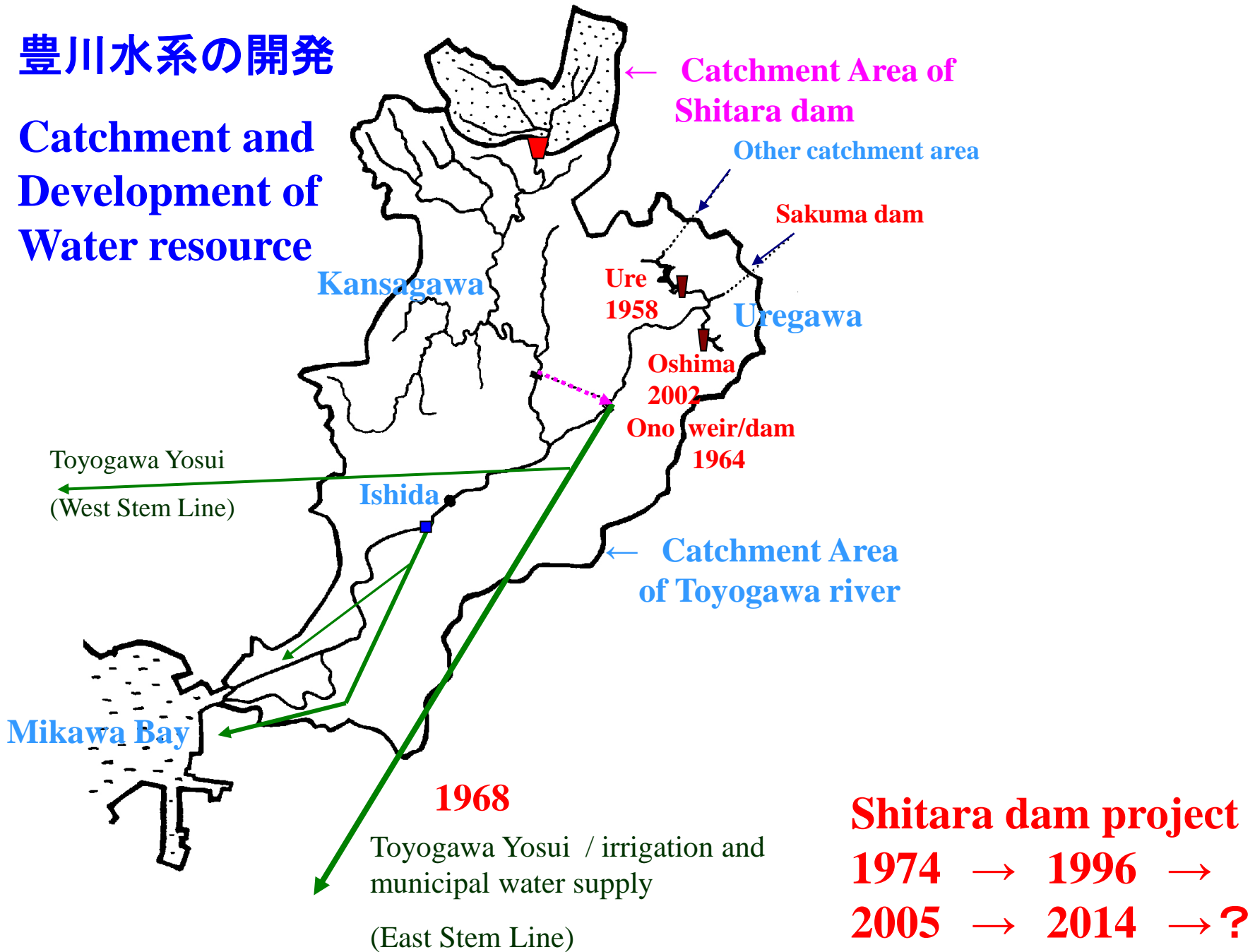
Bay	Area km ²	Depth m	Catchment Area km ²
Ise Bay	1738	19.5	13411
Mikawa B.	604	9.2	3624

図1 伊勢-三河湾集水域

Fig. 1 Catchment of Ise-Mikawa Bay

豊川水系の開発

Catchment and Development of Water resource



Shitara Dam Project

(the first case after the proclamation of
the environmental assessment law in Japan)

Toyogawa river, Shitara, Aichi pref.

Developer: Chubu-branch of Land Ministry

Total volume of reservoir	98 × 10⁶m³
functional volume	92
flood control	19
necessary river flow	60
municipal	6
irrigation	7

Concrete dam

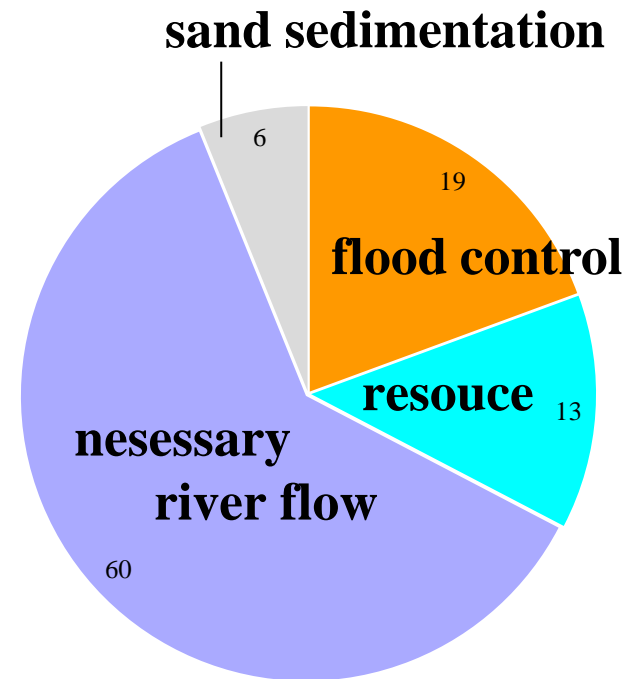
Catchment area 62.2 km²

Surface area of reservoir 297 ha

Surcharge altitude 444 m

Width of dam top 400 m

Height of dam 129 m



■ 洪水調節 ■ 新規水源 ■ 流水正常機能維持 ■ 堆砂

Volume % of Usage



Left : Ono weir of Toyogawa-Yosui
(Ono dam, 26 m height)

right upper : Ono reservoir

right under : flow-less stream
downward the weir



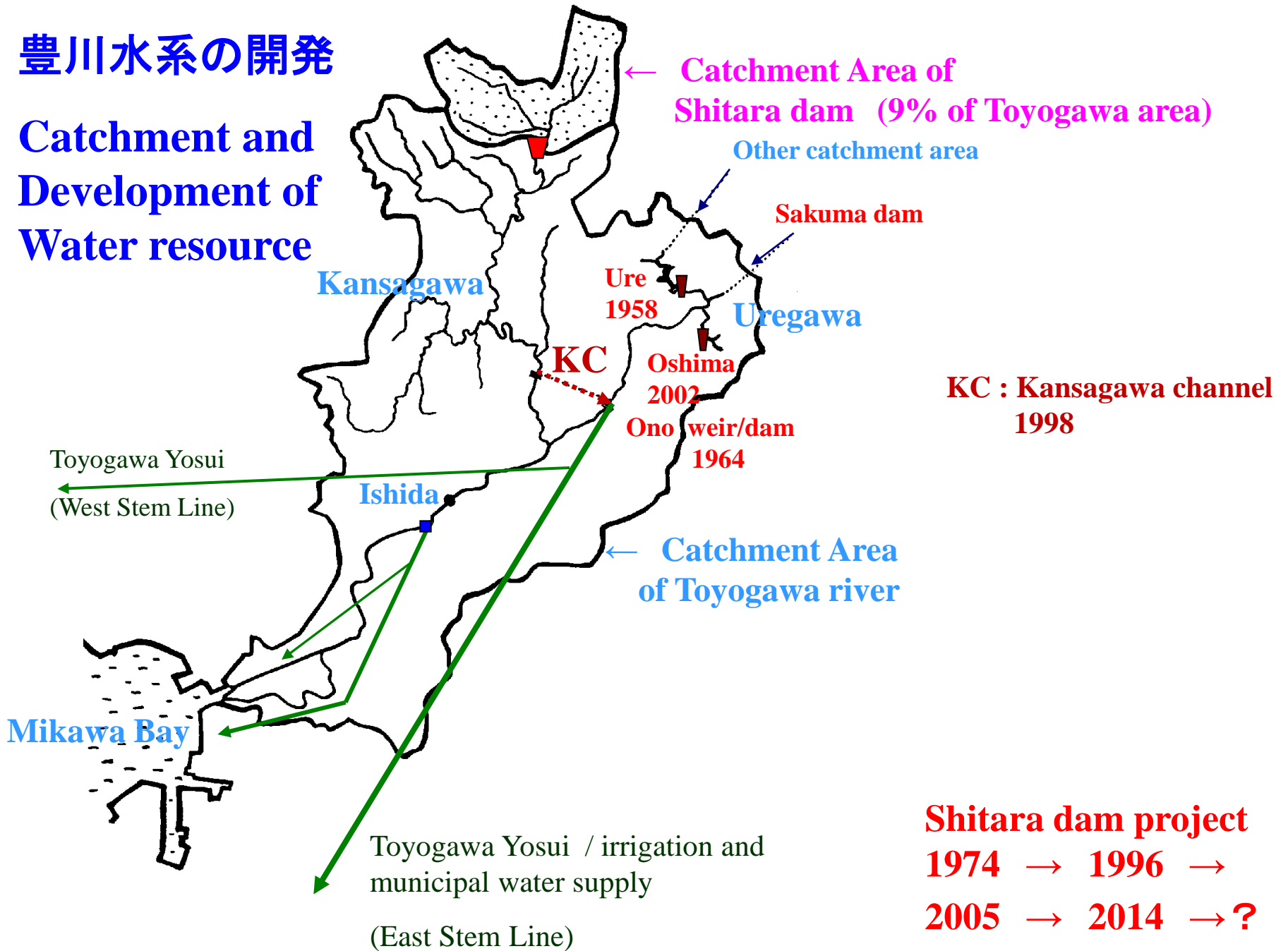


**lots of gravel sediments
containing litter at the
upstream of Ono reservoir**



豊川水系の開発

Catchment and Development of Water resource



KC : Kansagawa channel
1998

Shitara dam project
1974 → 1996 →
2005 → 2014 → ?



**upper stream of Toyogawa (Kansagawa)
rocks of gravels cover the floor of stream**

Nekogigi (*Pseudobagrus ichikawai*)

natural monument, endangered species

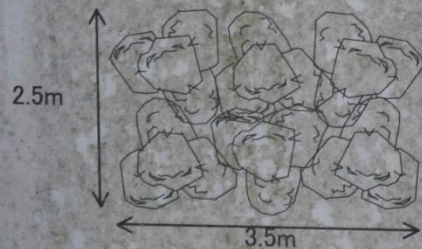
It's habitat is limited in the catchment of Ise Mikawa Bay



ネコギギ(伊勢・三河湾集水域の固有種、国指定の天然記念物、絶滅危惧種IB)、撮影:伊奈紘

試験中

この淵では、魚類等の生息環境を向上させるために、図の様な構造物を試験設置しています。
皆様のご理解、ご協力をお願い致します。



<自然石ブロック>

<連絡先>

国土交通省 中部地方整備局
設楽ダム工事事務所
TEL : 0536-23-4387

設置位置



The developer tries to transplant the Nekogigi population being submerged in the reservoir to the down stream.

2.5m



3.5m

**an artificially constructed
habitat model for Nekogigi**

＜自然石ブロック＞



A flood of typhoon in 2011 broke the habitat model constructed rocks.

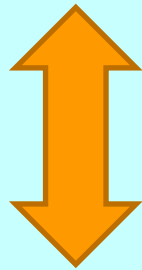


The broken model habitat, rocks with metal parts of binding were scattered on the river floor. The transplantation experiment was not successful.

Environmental assessment

<Developer>

**Limits the area of assessment upper than Huri,
Shinshiro**



<Citizen's opinion>

**Many people expressed that the assessment area
should be wide to Mikawa bay**

Shitara dam effects on the environment of Mikawa bay

Decrease of inflow of river water to Mikawa bay, especially in summer season



Depression of estuary circulation in the bay



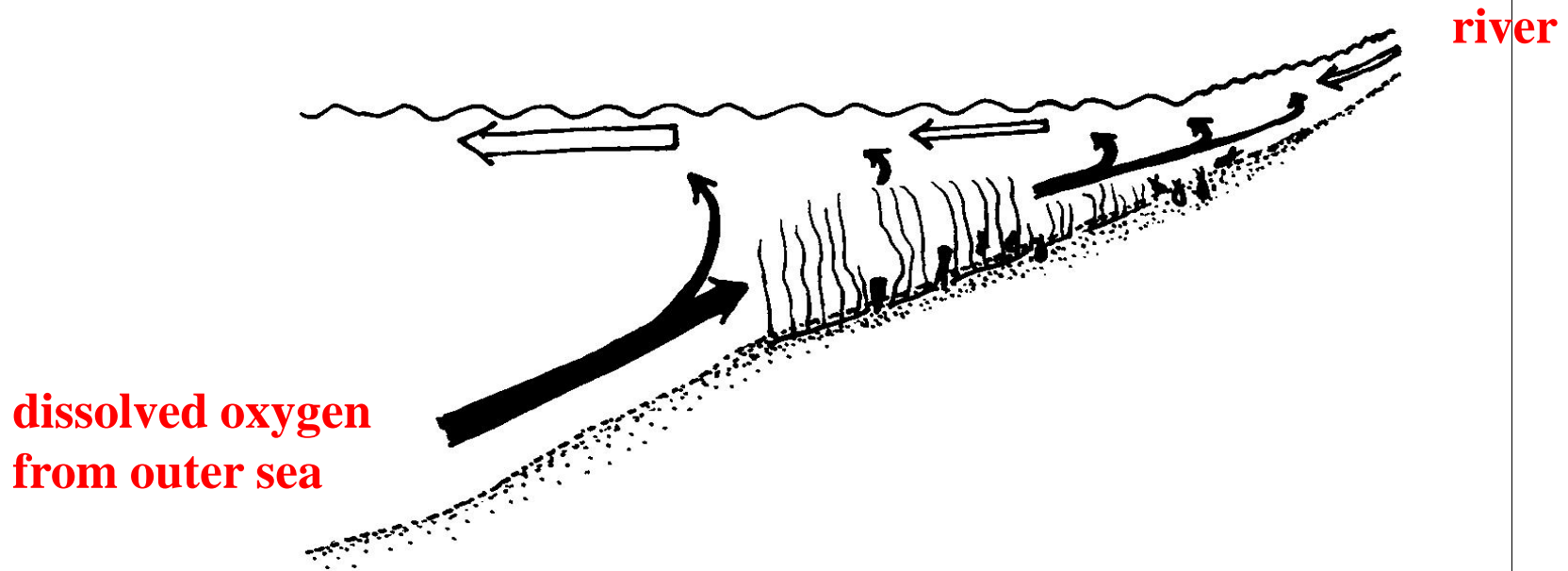
Growth of hypoxia and occurrence of blue tide



Abolish of benthos and decrease of biodiversity



Estuary circulation



River water stimulates the estuary circulation, and transportation of dissolved oxygen and also nutrients from outer sea to the bottom of the bay.

Hypoxia is a major problem to BD in Mikawa bay

Dissolved oxygen in the bottom region of the bay, 2005,

data by Aichi Fishery Institute

upper : 14, July

under : 21, July

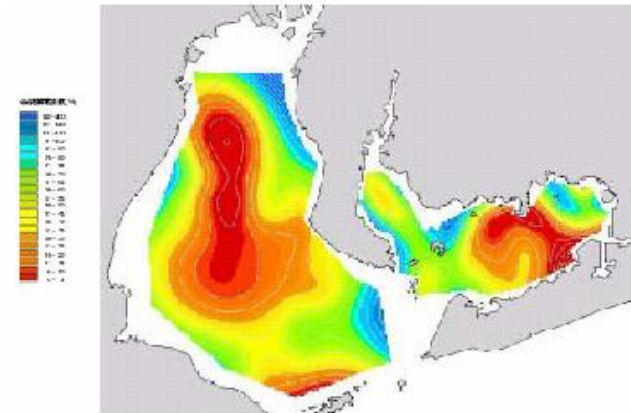


図 伊勢湾 (6月25日、7月6日)・三河湾 (7月14日) 式層の溶存酸素濃度の分布

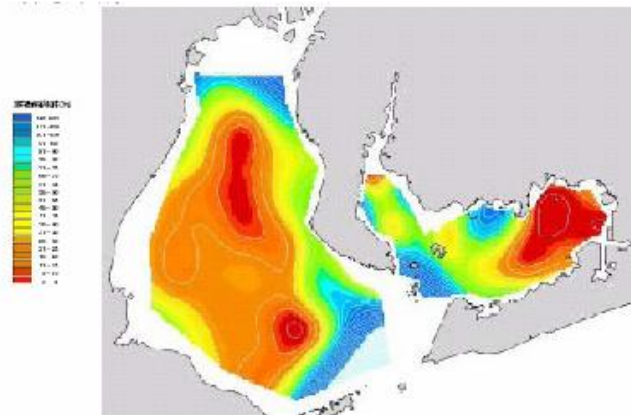


図 伊勢湾 (7月14、20日)・三河湾 (7月21日) 底層の溶存酸素濃度の分布



left : water shrew



right upper : mountain hawk-eagle

right under : shellfish

Dam construction effects on the environment of the catchment, conspicuously.

