

# 手賀沼を大切に！

*-Keep Teganuma Clean-*



手賀大橋 Tega Ohashi

## 昔の手賀沼 Teganuma in the old days



手賀大橋付近 (昭和初期)  
Near Tega-Ohashi (early Showa era)



子の神下 (昭和30年頃)  
Neno-Kami-Shita (around 1955)



根戸下 (昭和30年頃)  
Nedo-Shita (around 1955)

### 昔の魚

Fish from the old days



ウグイ  
Dace

### 昔の鳥

Bird from the old days



ヒシクイ  
Bean goose

### 昔の植物

Plant from the old days



ガシャモク  
Potamogeton dentatus

手賀沼水環境保全協議会  
Teganuma Aquatic Conservation Council

# 手賀沼浄化事業と流域市村

～Teganuma Purification Projects and Cities/Villages in the Basin～



**▲ ホテイアオイ播種・回収**  
事業主体(手水協)

Common Water Hyacinth Planting/Collection  
Main Body of the Project:  
Teganuma Aquatic Conservation Council

水中の栄養分(窒素・リン)を吸収して生長するホテイアオイの性質を利用して手賀沼の浄化に役立てています。初夏、沼にホテイアオイの苗を播種し、夏に大きく生長させ、秋に回収します。

The common water hyacinth (Eichhornia crassipes), which grows by absorbing nutrients from the water (nitrogen and phosphorus), is utilized for the purification of Teganuma. Young water hyacinth plants are planted in the early summer, are allowed to grow during the summer, and are then collected in the autumn.

**▲ アオコ分離脱水装置**  
事業主体(手水協)

Blue-green algae separation/dewatering machine  
Main Body of the Project:  
Teganuma Aquatic Conservation Council

アオコの溜まった沼の水をポンプでくみあげ、フィルターでろ過してアオコを分離・回収する装置です。

The machine pumps up water together with blue-green algae from Teganuma, and then filters out, separates, and collects algae from the water.

**■ 逆井河川浄化(リン除去)施設**  
事業主体(県・国土整備部) 柏市逆井

Sakami River Purification (Phosphorus Elimination) Facility  
Main Body of the Project: Prefectural Land Development Department (Sakami, Kashiwa City)

手賀沼へのリンの流入を削減するため、生活雑排水等で汚染した河川の水を浄化する施設です。施設から発生する汚濁水は手賀沼流域下水道に取り込まれ、下水処理場で処理されています。

This facility purifies river water that has been polluted by domestic effluent and so forth in order to reduce the inflow of phosphorus into Teganuma. Polluted water collected in the facility is channeled into the Teganuma basin sewerage and processed in the sewage disposal plant.

**■ 磯間等河川浄化施設**  
事業主体(県・国土整備部)

River Purification Facility Using Gravel Filtration and Other Methods  
Main Body of the Project: Prefectural Land Development Department

河川の河床に浄化用材(礫など)を敷き、接触酸化法により河川水の浄化を図る施設です。大堀川と大津川に設置されています。

This facility purifies river water by passing it through filter media (gravel and so forth) placed on the riverbed where it undergoes a contact oxidation process. This type of facility is placed in the Ohorigawa and Ohnigawa.

**● 都市排水路等浄化施設**  
Urban Drainage Purifying Plant

手賀沼に流入する都市排水路に浄化施設を設置し、汚れを軽減しています。

This type of plant is placed to handle the drainage routed to Teganuma to reduce pollution.

## 手賀沼の概要～Overview of Teganuma～

手賀沼は、千葉県の北西部、東京から20kmの位置にある海跡湖でその流域は、松戸市、柏市、流山市、我孫子市、鎌ヶ谷市、印西市、白井市、本埜村、の7市1村にわたっています。昭和30年代後半からの都市化による急激な人口増大などで、40年代後半から水質が急速に悪化しました。

近年、さまざまな対策の効果によって水質は少しずつきれいになっています。

Teganuma is an inland sea-lake located in the northwest part of Chiba Prefecture, 20 km from Tokyo. The Teganuma basin extends over seven cities and one village, namely, Matsudo City, Kashiwa City, Nagareyama City, Abiko City, Kamagaya City, Inzai City, Shiroi City, and Motono Village.

The basin region began to become urbanized and the population began to rapidly increase, starting in 1960. As a result, the water quality of Teganuma started to deteriorate rapidly starting around 1970.

In recent years, thanks to the application of various measures, the water quality has gradually been improving.

**● 市街地排水浄化対策モデル事業**  
Urban sewage cleanup model project

都市排水路に流入する生活雑排水や、地面の汚れを多く含む大雨時の雨水を緊急的かつ暫定的に公共下水道に取り込める事業です。取り込まれた水は手賀沼流域下水道の終末処理場で処理されています。

This project urgently and tentatively takes domestic effluent to drainage and rainwater containing dirt that has been picked up from the ground into the public sewers. The effluent and rainwater are processed in the back-end sewage disposal plant of the Teganuma basin sewerage.

**● 手賀沼公園マルチビジョン**  
MultiVision in Teganuma Park

手賀沼の環境・イベント情報

**● 下手賀沼の様子**  
View of Shimo-Teganuma

# 数字で見る私たちの手賀沼

## Teganuma in Figures

(手賀沼の諸元) (Data on Teganuma)

面積と周囲 Area and Circumference	6.5km <sup>2</sup> (東京ディズニーリゾートの約6.5倍)、周囲:38km 6.5 km <sup>2</sup> (approximately 6.5times as large as Tokyo Disney Resort) and 38km in circumference
貯水量(水の量) Storage Capacity (amount of stored water)	560万m <sup>3</sup> (東京ドームの約5杯分) 5,600thousand m <sup>3</sup> (approximately 5times as large as Tokyo Dome)
水深 Water Depth	平均0.86m (最大3.8m) 0.86 m on average (maximum depth: 3.8m)
流域面積(流域市村) Basin Area (cities and villages in the watershed)	143.98km <sup>2</sup> (松戸市・柏市・流山市・我孫子市・鎌ヶ谷市・印西市・白井市・本埜村) 143.98km <sup>2</sup> (Matsudo City, Kashiwa City, Nagareyama City, Abiko City, Kamagaya City, Inzai City, Shirai City, and Motono Villages)
流域人口(平成18年度) Population in the Watershed (as of fiscal 2006)	約48.3万人 483,000, approximately
下水道普及率(平成18年度) Sewerage Penetration Rate (as of 2006)	約85.1% (※処理人口約41万人) 85.1%, approximately (※ About 410 thousand people with access to mains sewerage)

## 手賀沼を汚している原因

### Factors Polluting Teganuma

#### 生活排水 Human Sewage

私たちの日常生活では、台所、洗濯、風呂、トイレなどでたくさんのお水を使用していますが、このときに出される排水を総称して「生活排水」といいます。このうち、トイレの排水を除いたものを「生活雑排水」といい、生活排水の約3分の2を占めています。

In our daily lives, large amounts of water are used for cooking, laundry, bathing, toilet flushing, and so forth. All such discharged water is generally called "human sewage", while everything but the water discharged from toilets is called "domestic effluent". This domestic effluent accounts for about 66% of the human sewage.

#### 生活雑排水中の汚れの内訳 Particulars of Domestic Effluent

台所から出る汚れが最も多くなっています。  
The kitchen is the major source of domestic effluent pollution.



出典：環境省  
Based on data from the Ministry of the Environment

## 家庭でできる生活排水対策

### Measures You Can Take to Reduce the Impact of Human Sewage

- 「流し」には、ろ紙をつけた三角コーナーを置き、これに調理クズなどを入れましょう。(CODを約7%減らせます。)
- 食器や鍋などの油やよごれは、ボロ布等でよくふいてから洗いましょう。(CODを約11%減らせます)
- 米のとぎ汁は植木にまく、無洗米を使うなどして、できるだけ流さないようにしましょう。(CODを約9%減らせます)

Place a corner trash bag with filter paper attached in your sink, and use it as a receptacle for food waste and cooking waste. (This reduces COD by approximately 7%.)



Use a rag or the like to wipe away oil and other dirt on dishes and cooking utensils, before actually washing them. (This reduces COD by approximately 11%.)



Pour rice washing water onto plants or use no-wash rice (pre-washed rice that does not need to be washed before cooking) to keep rice cooking water out of the drains. (This reduces COD by approximately 9%.)



- 洗濯洗剤は適量を使いましょう。また、洗濯のときは糸くずフィルターもつけましょう。Do not over-dose laundry detergent. Use a lint trap in the washing machine.
- 浄化槽は正しく管理しましょう。Keep the septic tank correctly maintained. 定期的に保守点検及び清掃を行いましょう。Keep the septic tank periodically maintained and cleaned.



消毒薬の点検補給  
Antiseptic substance  
check/supplementation



モーターなどの点検  
汚泥堆積状況の確認  
Motor/machinery inspection and sediment status  
check

これらを全部実施すると、  
生活排水の汚れ(COD)を

**約30%**

減らすことができます。

If all of the above measures are applied, human sewage pollution (COD) can be reduced by approximately **30%**.