Society

# Improvement of Environment along Railway Lines

# Measures to control dioxin from incinerators

In the past, JR East disposed of some of its waste using its own incinerators. Depending on the conditions inside an incinerator, however, dioxin can be generated. In the fiscal year ending March 2003, we stopped the use of all incinerators with the exception of one large one, which was closed in the fiscal year ending March 2005. We are now working carefully, step by step, on dismantling and removing the closed incinerators themselves.

## **Restricting use of herbicides**

For the sake of safe train operations, weeds are regularly removed along railway lines. While we generally remove them manually, we also use a certain amount of herbicide. Use and scope of application of herbicides are kept to a minimum and only herbicides whose toxicity to humans and animals is classified as ordinary (the lowest of three levels of toxicity) and toxicity to fish is "A" (the lowest of five levels of toxicity) are used. Application of herbicides is thoroughly covered by rules on avoiding effects on neighboring areas, including suspension of work if spraying conditions are not good. In the fiscal year ending March 2009, 283 tons of herbicides were used.

## Harmony with the landscape

Constructing a large-scale railway facility or remodeling one can affect the immediate area and surrounding environment, and their design is increasingly important. From the stage of planning and designing, we consider harmony with the landscape along with function and economy, endeavoring to build facilities friendly to the regional environment. In the fiscal year ended March 2009, the Temmagawa Bridge (between Kamikitamachi and Ottomo on the Tohoku Main Line) received the Civil Engineering Design Prize of the Japan Society of Civil Engineers - a recognition of our efforts by a distinguished outside party.



Using continuous concrete arches, the Temmagawa Bridge, between Kamikitamachi and Ottomo on the Tohoku Main Line, sits in harmony with the mountains and pastoral landscape of Aomori Prefecture and received the 2008 Civil Engineering Design Prize of the Japan Society of Civil Engineers.

### Use of groundwater in tunnels to purify rivers

Groundwater in underground tunnels is typically pumped out and drained away. JR East, in coordination with local municipalities, promotes draining clean spring groundwater in tunnels into surrounding rivers to purify water and improve the environment. In Tokyo, we started draining clean groundwater to the Nogawa River (via Sugatami Pond) in the fiscal year ending March 2002, to the Tachiaigawa River in the fiscal year ending March 2003, and to Shinobazu Pond in the fiscal year ending March 2004; and, in Kanagawa Prefecture, to the Yahagigawa River in the fiscal year ending March 2008.



Routing tunnel groundwater to the Tachiaigawa River