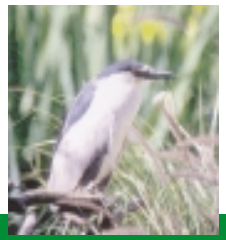
Wetlands Project

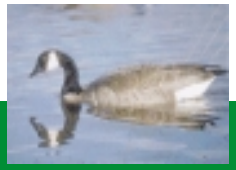
HISTORY

The New River was formed in the early 1900s when the Colorado River flooded. An international river, it originates 20 miles south of the border. It travels through the City of Mexicali across the International Border into the Imperial Valley at Calexico, California, meandering through agricultural fields, the city of Brawley and reaching its destination into the Salton Sea an important fishery and wildlife refuge.



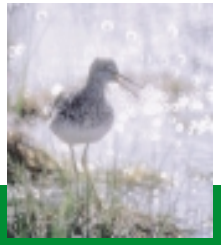
PROBLEM

As the New River flows from Mexicali to the Salton Sea, from both sides of the border the river acquires nutrients and heavy metals from sewage; nutrients, silt, selenium and pesticides from agricultural drainage. The concern is that the nutrient load carried by the New River is increasing the degradation of the Salton Sea.



GRASSROOTS ACTION

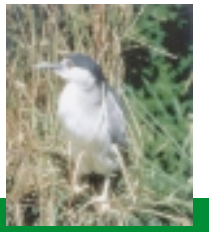
In early 1997, a concerned local organization, Desert Wildlife Unlimited, lead by Leon Lesicka, worked with U.S. Representative, Duncan Hunter to propose an economical, common sense solution to the pollution of the New River. As a result of this collaboration, the Citizen's Congressional Task Force on the New River was formed. This grassroots group has worked with several local, state and federal agencies to obtain grant monies, permits and to get construction plans in place.



PILOT PROJECT

The purpose of the Project is to construct a pilot Wetlands system to implement pollution control to reduce agricultural pollutants and improve quality of water discharged from the New River into Salton Sea.

The first pilot project will consist of 68 acres on the Rice Drain (see site map). Agricultural drain water will be diverted from Rice Drain into a series of wetland ponds (see Ponds - outside of brochure). The first pond will be a settling pond for silt removal. The water will then proceed through a series of four wetlands populated with vegetation that filter pollutants such as sewage, nitrogen, phosphates and heavy metals. A second pilot project, 7 acres near Brawley, will use water from New River and utilize the same ponding techniques.



MONITORING

To determine the success of the pilot program, extensive water quality monitoring will be conducted for three years. Monitoring will include: • General Water Chemistry • Selenium • Pesticides • Nutrients • Silt • Water Quality.

When monitoring proves the project successful, wetlands will be constructed in other selected sites, including the Alamo River.

BENEFITS

The Rice Drain Brawley site wetlands can provide the following benefits:

- Reduction of pollutants
- Habitat for a wealth of plants, fish, wildlife and migrating waterfowl
- Recreational benefits such as
  - hunting / fishing
  - bird watching
  - hiking / family outings

Greenfix America offers the New River Wetlands Project Participants maintenance solutions to protect the project's eroding shoreline with organic net erosion control blankets. The wetlands application utilized Greenfix America's WS072B and CF072B RECBs to stabilize the habitat islands and protect the wetlands shoreline vegetation from shoreline erosion.

SPECIFICATIONS

Site	Total Water in Pond	Retention Time	Maximum Depth
Imperial	127 Acre feet	18 days	Sed: 14 ft Cells: 4 ft
Brawley	21 Acre feet	9 days	Sed: 10 ft Cells: 4 ft

SPECIFICATIONS

Site	Water Source	Wet Acres	Flow Rate
Imperial	Ag drain	22.7	4 cfs
Brawley	New river	6	1 cfs

DO = DISSOLVED OXYGEN
TOTAL N = NITROGEN
P = PHOSPHORUS
BOD = BIOCHEMICAL OXYGEN DEMAND
TSS = TOTAL SUSPENDED SOLIDS

IMPERIAL SITE MONITORING SUMMARY (AVERAGES) 2001

MG/L	INLET (MG/L)	OUTLET (MG/L)	%CHANGE
DO	7.92	10.95	28% INCR.
TOTAL N	5.8	3.5	40% DECR.
TOTAL P	1.95	.57	71% DECR.
SELENIUM	.007	.005	29% DECR.
BOD	20	15	25% DECR.
FECAL COLIFORM	1998	76	96% DECR.
TSS	179	19	89% DECR.

IMPERIAL SITE MONITORING SUMMARY (AVERAGES) 2001

MG/L	INLET (MG/L)	OUTLET (MG/L)	%CHANGE
DO	3.67	10.83	66% INCR.
TOTAL N	.9	.9	0
TOTAL P	1.59	.73	54% DECR.
SELENIUM	.011	.008	27% DECR.
BOD	16	13	19% DECR.
FECAL COLIFORM	151,664	274	99.8% DECR.
TSS	543	13	98% DECR.