

Habitat Matrix							
Code	Cat 1	Cat 2	Date	Location	Source	Investigator	Highlights
F186	Misc	Wildlife	1996	CA	TRB	Barrett, D	effects of traffic noise on Least Bell's Vireo
F187	Misc	Wildlife	1976	GN	AASHTO		wildlife conservation planning for transportation facilities
F188	Animal	Pelicans	1991	TX	TRB	Owens <i>et al</i>	brown pelican behavior studied in relation to traffic
F190	Misc	Wildlife	1994	GN	TRB	Hanson <i>et al</i>	state DOTs surveyed on endangered species polices re transportation
S191	Misc	Vegetation	1986	TX	TXDOT	Golding, S	vegetation management techniques compared
A192	Source	Vegetation control	1996	TX	TTI	Hauser <i>et al</i>	use of pesticides in Texas and impact on environment of each type
F194	EA	All	1999	Border	USCOE		Full PEIS for border states related to INS activities.
F197	Model	Vegetation	1989	GN	TRB	Shanahan <i>et al</i>	
F201	Plant	Policy	1994	GN	EPA		Federal projects to use beneficial landscaping
E205	EA	All	1988	NM	NMSHTD		environmental assessment for repaving project
E206	EA	All	1988	NM	NMSHTD		flood protection near Gila Cliff Dwellings
F207	Plant	Vegetation control	1988	TX	TRB	Buffington, J	vegetation control measures studied in TX
F209	Animal	Wildlife	1975		FHWA	Leedy, D	highway/wildlife relationship explored
O210	Misc	Planning	1991	GN	AASHTO		environmental design issues for transportation facilities
O211	Plant	Planning	1989	NM	NRVMA	Roybal, B	vegetation management plan for New Mexico
E212	EA	All	1974	TX	THD		environmental assessment for road improvement in Texas
F213	Animal	Bats	1999	TX	FHWA		bat colonies use bridges as roosts.
A220	Animal	roadkill	1997	GN		Lehnert <i>et al</i>	Crosswalk reduces deer mortality rates
A222	Plant	Road	1994	TX	TTI	Schutt <i>et al</i>	prairie restoration efforts for roadsides
O224	Animal/Plant	Planning	1992	GN	AICP	Butler, K	Tools and techniques for planning with wildlife and open space in mind
A240	Model	Planning	1997	AZ	SCERP	Steiner, F	Developing planning model for Upper San Pedro watershed
A241	Plant	restoration	1998	various	SCERP	Watts, S	Assessing riparian habitat along Rio Grande in NM and TX.
F251	Plant	landscaping	1995	GN	GPO		Guidance on Executive memo on landscaping
F255	Wetlands	runoff	1983	GN	NCHRP	Kobriger <i>et al</i>	guidelines for management of highway runoff
A257	Animal/Plant	Development	1997	GN		Theobald <i>et al</i>	habitat fragmentation in CO model. Suggestions for development
A258	GIS	Planning	1997	CO		Theobald <i>et al</i>	SCoP - interactive GIS for effects of development on area
F273	Model	Vegetation	1987	GN	FHWA	Ostler <i>et al</i>	methods to enhance recovery of native vegetation
S277	Model	GIS	1999	GN	FDOT	Smith <i>et al</i>	GIS model used for highway planning & environ. Conservation
O279	Model	Wetlands	1998	GN	ASCE	Yu <i>et al</i>	use of wetlands for controlling NPS runoff
O280	Restoration	Shoreline	1998	CA	ASCE	Walker <i>et al</i>	restoration of Batiquitos Lagoon in CA
O281	Model	restoration	1998	CA	ASCE	Walker <i>et al</i>	planning of tidal wetlands in California
O283	Source	Wetlands	1996	GN	AASHTO	Quarterman <i>et al</i>	wetland design and management issues
A284	Animal	Crossings	1975	GN		Reed <i>et al</i>	deer use of concrete box underpasses
A285	Animal	Crossings	1974	GN		Reed <i>et al</i>	results of field test of one-way gates for deer passage

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A286	Animal	Raptors	1993	GN		Holmes <i>et al</i>	raptor behavior near roadways
S287	Misc	Public attitudes	1992	TX	TDOT	Hauser <i>et al</i>	Issues re: pesticide use, public attitudes
S288	Model	GIS	1994	AZ	ADOT	Landphair <i>et al</i>	GIS evaluated for Arizona DOT
A294	Animal	Animal-Vehicle Accidents	1997	GN		Klopatek, J	Crosswalk structures are tested for reduction in wildlife accidents
O295	Model	GIS	1999	GN	WWA	Lehnert, M	GIS used to create models for wildlife accident risk areas
F296	Animal	Planning	1982	GN	DOT	Bissonette, J	Overview of animal behaviors & highway system requirements
F297	Animal	Info	1999	GN	FHWA		Evaluation of wildlife crossings
O298	ITS	Animal-Vehicle Accidents	1997	GN	ITS	Flint <i>et al</i>	Intelligent Transportation Systems to reduce animal-vehicle accidents
A299	Wetlands	GIS	1999	GN	ITRE		GIS used for planning & compliance with federal wetland laws
A301	Plant	Wildflowers	1995	GN		Johnson, W	Guide to establish wildflowers along highways
F302	Animal	Pesticides	1990	TX	EPA		Horned toads & small animals impacted by pesticide use along roads
A303	Model	Coastal Environment	1997	GN		LaValle <i>et al</i>	microcomputer modeling system to simulate changes in coast areas
F304	Animal	Planning	1981	GN	FHWA	Adamus <i>et al</i>	general discussion of habitat & highways
F305	Misc	Wetlands	1995	GN	FHWA		mitigation banking highlighted for wetland protection
F306	Misc	Wetlands	1995	GN	NAS		wetlands defined and management recommendations
A307	Plant	Herbicides	1995	GN		Sherman, F	vegetation control beyond herbicide use
A308	Plant	Vegetation	1994	TX	TTI	Simpkins, C	roadside vegetation management research presented
A311	Animal/Plant	Planning	1995	AZ		Taylor, M	General Hitchcock Highway improvements environ. Preservation
A315	Animal	Owls	1993	GN		Smith <i>et al</i>	impacts of traffic on owl nesting behavior
A316	Animal	Deer	1991	GN		Soden, D	use of highway underpasses by mule deer
A317	Animal	Frogs	1973	GN		Jarrett, M	assessment of frog population reduction by vehicle kill
A318	Animal/Plant	Wildlife	1997	UT	USU	Jarrett <i>et al</i>	training manual for habitat conservation
A319	Plant	Herbicides	1994	TX	TTI	Balling <i>et al</i>	effectiveness & impact of herbicide use on roadways
A320	Plant	Herbicides	1995	TX	TA&M	Watts <i>et al</i>	herbicide leafy spray methods analyzed
F321	Conservation	Planning	1995	GN	FHWA	Thorsnes <i>et al</i>	ecosystem management approach to planning
A322	Animal	Tortoises	1996	CA			decline of tortoises due to vehicles
A323	Plant	Erosion	1999	GN			RoadCrest wheat grass to fight erosion
A324	Animal	Fencing	1997	NM			barbed-wire fencing to deter elk evaluated
A326	Animal	Animal-Vehicle Accidents	1981	CO		Soden, D	highway lighting to reduce deer-vehicle accidents
A327	Model	GIS	1995	GN		Levinson, <i>et al</i>	GIS to determine wildlife patterns
F328	Animal	Animal-Vehicle Accidents	1980	GN	FHWA	Dupuis, T	deer, elk, antelope behavior patterns, ways to reduce accidents

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A329	Animal	Animal-Vehicle Accidents	1988	GN		Keough, J	feeding stations to reduce deer-vehicle accidents
A334	Animal	Animal-Vehicle Accidents	1985	GN		Shuldiner <i>et al</i>	Swareflex reflector system examined
O335	Model	GIS	1998	CA	WMI	Newton <i>et al</i>	GIS in land use planning and wetland management
A337	Animal	Animal-Vehicle Accidents	1996	GN		Klopatek <i>et al</i>	traffic patterns, topo features evaluated for deer collisions
A338	Animal	Crossings	1995	GN		Weaver <i>et al</i>	underpass use by various animals
A339	Animal	Tortoises	1995	CA		Mayoral <i>et al</i>	tortoise decline due in part to roads
F340	Animal	Tortoises	1984	SW	UFWS	Emerson	highways & off-road vehicles impact tortoise population
A341	Animal	Collisions	1992	GN		Sperling, D	effectiveness of deer whistles tested
A342	Animal	small mammals	1983	GN		Adams <i>et al</i>	effects of roads on small animal populations
A343	Model	GIS	1998	GN		Brown <i>et al</i>	GIS for restoration and management of wetlands
A344	Animal	Planning	1992	GN		Beier <i>et al</i>	checklist to improve wildlife corridors
A345	Animal	small mammals	1982	TX			effects of highways on rodent movements
A346	Animal	Animal-Vehicle Accidents	1997	GN		Putnam, R	deer movement patterns in relation to roads
F349	Wetlands	Planning	1996	GN	NCHRP	Denbow <i>et al</i>	wetland replacement guidelines
F354	Model	management	1995	GN	FHWA	Bank <i>et al</i>	ecosystem approach applied to transportation research
O355	Animal	Planning	1994	GN	UTP	Beatly, T	urban growth and planning & endangered species
F357	Animal	Animal-Vehicle Accidents	1971	GN	EPA	Davidson <i>et al</i>	location of landfills near airport cause bird hazards
A359	Animal/Plant	Planning	1993	GN		De Santo <i>et al</i>	issues when transportation corridors intersect wildlife corridors
F361	Model	Planning	1997	GN	TRB	Bardman, C	methods to identify and mitigate transportation impacts on environment
F362	Model	Planning	1997	GN	TRB	Adler <i>et al</i>	computer program CAPER presented
F365	Animal	Crossings	1991	GN	TRB		conference proceedings
F368	Animal	Animal-Vehicle Accidents	1993	CA	FHWA	Ford <i>et al</i>	Swareflex warning system testing in CA
E372	EA	All	1991	NM	NMSHTD		environmental assessment of improvements to I-10 corridor
E373	EA	All	1996	NM	KEP		environmental assessment for road improvements in Las Cruces
E374	EA	All	1991	NM	FHWA		EA for I-10 corridor improvements
E375	EA	All	1991	NM	DOT		evaluation for road improvements
E376	EA	All	1996	NM	MC		environmental assessment of improvement to roads in New Mexico
E377	EA	All	1992	NM	DOT		environmental assessment for improvements to NM 28
S378	Animal/Plant	Coastal Environment	1998	TX	TGLO		coastal management program for Texas
S379	Wetlands	Planning	ud	TX	TGLO		guidelines for conservation, creation or restoration of wetlands

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A382	Animal/Plant	riparian zones	1992	AZ	SCERP	Patten, D	ecological concerns of Santa Cruz River
O389	Conservation	Wildlife	1992	CA/TX Coasts	CMC	Younger <i>et al</i>	detailed information on findings by beach cleanup crews
S391	Animal	Animal-Vehicle Accidents	1996	GN	FDOT	Evink <i>et al</i>	papers on wildlife mortality
F392	Animal	Coastal Environment	1985	CA	USDC	Stewart <i>et al</i>	pinnipeds become entangled in commercial fishing vessel debris
F393	Source	Coastal Environment	1990	GN	EPA		plastic marine waste composition and source identified; effects
F394	Conservation	Coastal Environment	1992	GN	EPA		the why and how of coastal and wetlands resources is presented
F399	Animal	Animal-Vehicle Accidents	1998	GN	FAA	Cleary <i>et al</i>	Seven years of wildlife/aircraft collision data
F400	Animal	Animal-Vehicle Accidents	ud	GN	FAA		Identification of problems & mitigation suggestions for airports
F407	Model	Planning	1995	GN	TRB	van Bohemen, H	Habitat fragmentation mitigation plan
F408	Model	Wetlands	1992	GN	TRB	Ossinger <i>et al</i>	Aerial photography & GIS modeling tested for wetlands inventory
S413	Animal	Bats	1999	Border	FDOT	Tuttle, M	environmental mitigation through providing bat habitat
S414	Animal	Animal-Vehicle Accidents	1999	AZ	FDOT	Brown <i>et al</i>	Arizona DOT's approach to reduce accidents between deer & vehicles
S415	Animal	mitigation	1999	Sonora	FDOT	Castillo-Sanchez, C	Sonoran pronghorn habitat endangered by highway project
S416	GIS	Animal-Vehicle Accidents	1999	GN	FDOT	Hindelang <i>et al</i>	GIS used to reduce deer-vehicle accidents
F417	Animal/Plant	runoff	1999	GN	USDI	Granato <i>et al</i>	effects of highway runoff on environment examined
F421	Model	Wetlands	1985	GN	TRB	Horner <i>et al</i>	protocol to assess impact of highway operations on aquatic ecosystems
E426	EA	All	1981	NM	NMSHTD		proposed improvements to U.S. 70 through Mescalero Reservation
E427	EA	All	1984	NM	NMSHTD		proposed improvements to U.S. 70 in Lincoln County
A429	Animal	runoff	1996	CA	MSI	Cooper <i>et al</i>	effects of runoff on water chemistry & fish communities
S433	Plant	runoff	1980	CA	CALTRA NS	Winters <i>et al</i>	effects of runoff on productivity of algae tested
F439	Misc	Biodiversity	1996	GN	TRB	Marble <i>et al</i>	survey of state DOTs on biodiversity studies
F440	Plant	Vegetation	1988	AZ	TRB	Hatzell <i>et al</i>	evaluation method of different plants used in medians
O441	Plant	Info	1989	GN	NRVMA	McCully, W	relationship between the TRB and the NRVMA
S447	Source	Pesticides	1982	TX	TDWR	Dick, M	Rio Grande tested for pesticides
F453	Misc	Reference	1996	GN	TRB	Herbstritt <i>et al</i>	1995 survey of state transportation agencies examined
F454	Plant	Planning	1988	AZ	TRB	Hatzell <i>et al</i>	Results of evaluation of different plants along freeways
O455	Plant	History	1989	GN	NRVMA	McCully, W	The relationship between the TRB and NRVMA discussed
S456	Animal	Snakes	1999	TX	FDOT	Rudolph <i>et al</i>	Examination of the depression of snake populations due to roads
A457	Wetlands	Info	1999	TX	CTRUTA	McConnell Hinojos	review of Clean Water Act Section 404 projects