DEVELOPMENT OF A HABITAT RESTORATION GEO-DATABASE FOR THE MIDDLE RIO GRANDE

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BACKGROUND

Under contract with NM Interstate Stream Commission

Spatial database: database optimized for storing and querying data that represents objects defined in a geometric space.

Currently stores single topology type: polygon

Completed projects.

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PROJECT GOALS

Comprehensive

What has been done – who, what, when, where, why

Served on Collaborative Program's new website

Streamline thematic map making, data summary, and analysis

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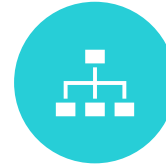*Innovative Solutions*

DEVELOPMENT PROCESS

- Presented at Collaborative Program HR/Science Workgroup meeting

- Solicited feedback from Program partners

- Obtained existing HR Geo-databases

- Met with key Program partners

- Obtained new/missing sites, key supplemental info

- Developed attribute schema

- Processed data

- Circulated draft database for review

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ATTRIBUTE FIELD

STANDARDIZE TERMINOLOGY

STANDARDIZE LEVEL OF DETAIL

STREAMLINE QUERIES AND MAP MAKING

TRACKING SITE PERFORMANCE

FACILITATE LEARNING

PRIORITIZING MONITORING, MAINTENANCE, ADAPTIVE MANAGEMENT

- ~45 fields
- Basic background info (names, RM, reach, agency, funding, source, notes)
- Target beneficiary spp (RGSM, YBCU, SWFL, MJM)
- Construction elements (Fp manipulation, direct surface water connection, exotic spp treatments, revegetation, target discharges)
- As builts
- Monitoring (type and year)
- Maintenance (type and year)

TargRGSM	TargWiFL	TargYBCU	TargMJM	ProjCompYr	FundingAgency	CPFunded	AsBuilt	AsBuiltAcc
Target RG Silvery Minnow?	Target SW Willow Flycatcher?	Target Yellow Billed Cuckoo?	Target Meadow Jumping Mouse?	Project Completion Year	Funding Agency	Collaborative Program Funded?	As Built	As Built Accuracy
Was the Rio Grande Silvery Minnow a targeted beneficiary?	Was the Southwestern Willow Flycatcher a targeted beneficiary?	Was the Yellow-Billed Cuckoo a targeted beneficiary?	Was the Meadow Jumping Mouse a targeted beneficiary?	Years that construction was completed	List of funding agencies	Was the project funded by the Collaborative Program?	Do project as builts exist?	What is the accuracy of the as built data?
0	0	0	0	Year(s)		0	0	Survey grade
1	1	1	1			1	1	Professional grade GPS
-98	-98	-98	-98			-98	-98	Other GPS
-99	-99	-99	-99			-99	-99	Digitized
								Unknown

SITE SUMMARY

- Nearly 20,000 acres

- ~1,000 polygons

- Revegetation: 2,100 acres

FLOODPLAIN MANIPULATION PROJECTS

Middle Rio Grande

- Approximately 2,000 acres
- ~500 individual excavation feature

ABQ Reach

- Approximately 530 acres
- ~325 individual excavation feature

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MAJOR DATA GAPS

- Bosque del Apache
- NM Game and Fish
- ABQ Open Space revegetation and exotic spp treatments
- Cochiti, Santo Domingo, San Felipe, Isleta Pueblo
- Attribution of various sites

RECOMMENDATIONS

- GIS "service"

- Raise awareness

- Expand into additional reaches (watersheds?)

- Fill current data gaps

- Maintain and update
  - Designate data steward

- Link with supplemental information

- Include sites not yet constructed

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POTENTIAL UTILITIES

Quatifying acreage of inundated habitat contributed by HR projects

Assessing longevity of various design alternatives

Comparing vegetation conditions across revegetated and non-revegetated sites

Prioritizing maintenance

Siting monitoring

Selecting future HR project sites

THANKS!

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