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**LONG-TERM MONITORING PLAN FOR LINE DISTANCE SAMPLING  
 STANDARD OPERATING PROCEDURES**

Element/SOP		Actions	Sources for Workplan and SOPs
Background and Objectives			
	2007	Objectives built on Recovery Criteria	1994 Recovery Plan
	2008	Objectives built on Recovery Criteria	1994 and draft Recovery Plan; history of process adopting Line Distance Sampling
Organization and operations			
	2007	First year DTRO Monitoring Coordinator Five Desert Tortoise Monitoring Committee (DTMC) advisement meetings Informal teams for Sampling Design, Data Management Two debriefings on data handling, field season preparation	
	2008	Teams created for Data Management, Training Informal team continues for Sampling Design 2-3 DTMC coordination meetings Costs and budget considerations	Draft Org Chart of monitoring elements and teams



Element/SOP		Actions	Sources for Workplan and SOPs
Conducting distance sampling			
	<p>2007</p> <p>2008</p>	<p>Build equipment list, collect protocols for transects and G-0</p> <p>Debriefing to evaluate field preparations</p> <p>Develop written protocols and training modules for tortoise handling, equipment use, data collection, radio telemetry, GPS navigation, transect techniques</p> <p>Develop annotated data forms</p> <p>Debriefing to evaluate field preparations</p>	<p>2007 Monitoring Handbook</p>
Data Collection			
	<p>2007</p> <p>2008</p>	<p>Purchase standard hardware (rugged PDAs, bluetooth GPS)</p> <p>Move toward parallel contracting and Scopes of Work in California and Nevada/Arizona/Utah</p> <p>Standardize instructions to crews range-wide</p> <p>Debriefing to evaluate data collection needs for 2008</p> <p>Team formed to develop database and related data proofing, validation, and verification macros</p> <p>Training materials to be developed by a subteam</p> <p>Continue standardizing crew preparation range-wide; emphasis in 2008 is on training</p>	<p>Draft database tables and fields, field descriptions</p> <p>Draft training objectives, standards, metrics, curricula</p>

Element/SOP		Actions	Sources for Workplan and SOPs
Data Management			
	<p>2007</p> <p>2008</p>	<p>Develop standard data handling procedures for crews range-wide</p> <p>Informal team implements quality control (QAQC) based on draft QAQC plan</p> <p>Debriefing to evaluate 2007 data collection and QAQC priorities</p> <p>Team to develop database and related data proofing, validation, and verification macros</p> <p>QAQC plan to be completed as preseason agreement rather than post-season documentation</p>	<p>QAQC Plan distributed with final database in Sept 2007</p> <p>Draft database field descriptions including identification of macro requirements</p> <p>QAQC Plan to be completed December 2007</p>
Data Evaluation			
	<p>2007</p> <p>2008</p>	<p>Preseason evaluation of priorities to improve density estimates</p> <p>Oversight to improve and document density estimation procedures</p> <p>Preseason evaluation of possibilities for sampling in steep terrain</p>	<p>Revisit of power analysis, variance components presentations, G-0 white paper</p> <p>Draft Introduction and Methods for DTRO annual report</p>
Research integration			
	<p>2007</p> <p>2008</p>	<p>Collect threat-related data in areas not sampled in 2005</p> <p>Streamline data collection to only line-distance-related material</p>	<p>Final UNR report due fall 2009</p>
Reporting			
	<p>2007</p> <p>2008</p>	<p>Annual range-wide results</p> <p>Permit reporting</p> <p>Annual range-wide results</p> <p>Permitting reporting</p>	<p>DTRO annual report (Dec 2007)</p>