Supplementary material. SADA and DESYRE DSSs descriptive classification criteria (main issues

fur	SADA CT IDENTIFICATION niversity of Tennessee, Knoxville, being nded by the United States nvironmental Protection Agency and the	DESYRE Venice Research Consortium (CVR), Ca' Foscari University of Venice, the National Research
Developer/Vendor Un fur	niversity of Tennessee, Knoxville, being nded by the United States	
fur	nded by the United States	
	-	University of Venice, the National Research
En	nvironmental Protection Agency and the	
		Council (CNR), Insiel and Thetis S.p.a. Italy
Un	nited States Nuclear Regulatory	
Со	ommission, and Oak Ridge National	
La	boratory (ORNL, www.ornl.gov)	
col	llaboration	
Contact point for		http://www.veneziaricerche.it/en/consortium.html
more info. htt	tp://www.sadaproject.net/index.html	
Platform Wi	indows 95/98/NT/2000	Windows 95/98/NT/2000
DSS's FUNCTIONS		
Main Vis	sualization	Visualization
Features/Modules Ini	itial Sampling	
Sec	condary Sampling	
Sta	atistical Analysis	
Ge	eospatial Interpolation	Geospatial Interpolation
Hu	uman Health Risk Assessment	Human Health Risk Assessment
Ec	cological Risk Assessment	
Со	ost/Benefit Analysis	Socio-economic assessment
		Remedial Process Selection and simulation
M	ARSSIM	
Interactive (I) or F		Ι
File Input (F)		
Input/Output		

related to DSS's)

Tabular Input	.csv, .mdb	Georeferenced database based on Oracle
Tabular Output	.csv, mdb.	.CSV
Graphic Input	dxf.; shp., jpeg, gif, tiff	shp.
Graphic Output	dxf.; shp., jpeg, gif, tiff	shp.
Print Report?	Yes	No
Ease of use	SADA has an intuitive graphical interface	DESYRE requests GIS (ArcMap) and Oracle
	that allows the analyst to use all of its	database knowledge in order to run the modules
	features. More advanced tasks require	developed inside the DSS.
	training.	
Usage	Several examples of its use are provided	Few case studies done for research and educational
	on its web page.	purposes.
Stage of	Mature product that has been available for	Intermediate version of the DSS available for
development	several years.	research and educational purposes at Venice
	Continually being updated and improved.	Research Consortium in Venice, Italy.
	Enhanced versions released periodically.	
Costs	Free	Not free
Independent	US EPA ETV	No
testing		
Potential	Statisticians	
technical team	Environmental Authorities	Public authorities (municipalities, regional and
members		national administrations)
	Risk Assessors	Risk Assessors
	GIS Users	GIS Users
	Project Managers	Sites owners and developers
		Services providers
	Academia	Research Institutes and Universities
	Stakeholders	Experts in characterization plan development
		Hydrologists
		Chemists

ANALYTICAL METHODS				
Categories of contaminants				
Organic	\checkmark	\checkmark		
Inorganic	\checkmark			
Radioactive	\checkmark			
Contaminant phase	Contaminant phase			
Aqueous	\checkmark	\checkmark		
Non-aqueous	\checkmark	\checkmark		
Gas				
Solid	\checkmark			
Site environmental	characteristics			
Vadose zone	\checkmark			
Saturated zone	\checkmark			
Characterization a	nalysis			
Data management				
Interface with				
transient codes				
(transport)				
Sort and query data				
Data analysis				
Static	\checkmark	NA		
Transient				
Spatial dimensions	3	2		
Define	\checkmark			
areas/Volumes of				
concern				
Calculates mass of				
contamination				
Address	\checkmark			
uncertainty in the				

decision variable		
Sampling guidance		NA
Data visualization		
Surface structures	\checkmark	
Hydrologic		\checkmark
structure		
Subsurface	\checkmark	\checkmark
structures		
Contaminant	\checkmark	\checkmark
visualization		
Media		1
Soil/Sediment	\checkmark	\checkmark
Soil gas		NA
Air	NA	NA
Surface water		\checkmark
Groundwater		\checkmark
Exposure	Industrial	Residential
scenarios	Residential	Recreational
	Recreational	Industrial
	Agricultural	
	Excavation	
		Population services
		Tourist
		Services for business and firms, these three
		scenarios used within the socio-economical module.
Exposure	Ingestion	Ingestion
pathways	Inhalation	Inhalation
	Dermal Contact	Dermal Contact
	External (radiation)	Combined exposure
	Food Consumption	

Combined exposure	