GA NCRAOA

## THE ENVIRONMENT AGENCY'S RISK PORTFOLIO ANNEX 1, REGISTER OF RISK ASSESSMENT TOOLS

Raquel Duarte-Davidson and Simon Pollard

Guidance Note 19

December 1999

Title: The Environment Agency's Risk
Portfolio Annex 1, Register of Risk
Assessment Tools

Version: 1.0 Preliminary draft for comment
Issue Date:

Approval

J. Irwin

December 1999

Distribution: Environment Agency
External

ENVIRONMENT AGENCY

040941

## ANNEX 1: Register of Risk Assessment Tools

## Purpose

The Register of Risk Assessment Tools provides a detailed listing and description of tools (i.e. models, procedures, ) used or under development within the Environment Agency for risk assessment purposes. The register was initially developed based on interviews with personnel from each of the Agency's functions and more recently updated by telephone or fax. The register does not aim to cover all tools available, but rather to summarise those tools most frequently used. To help keep updated this register, please advise the authors of this report of any tools currently not included this Annex. The register is intended to inform the Agency as a whole, and the Directors of Environmental Strategy and Environmental Protection in particular, on the current capabilities of the Agency in risk assessment.

The tools are each described using standard proformas which specify the characteristics of the tools using key phrases. The proforma is explained below.

The order of the proformas is currently grouped according to the section of the Environment Agency from which the tool originated, e.g. Water Resources. However, many of these tools are used by different functions of the Agency. A form reference is used to distinguish each tool, using a code structure of the initials of the Agency section plus a 3-digit number, e.g. WR012. The form references are thus as follows:

SR	Environmental Strategy
OTH	Other tools not specific to any of the above
PIR	Process Industries Regulation
RAS	Radioactive Substances Regulation
LQ	Land Quality
WQ	Water Quality
WP	Waste Management and Regulation
FD	Flood Defence
CO	Fisheries and Conservation
RN	Recreation and Navigation
WR	Water Resources

Table 1 of this Annex provides a brief explanation of the categories used to define the principal characteristics of those risk assessment-related tools used within the constituent parts of the Environment Agency. It is important to note that in many cases, risk assessment is an implicit rather than explicit use of the models and procedures recorded on the proformas. Table 2 lists all the tools included in this Annex and provides a brief description of the purpose of the technique, model or procedure. This is followed by individual proformas for all the tools presented in Table 2.

Table 1: Proforma

Proforma	Contents	Title
Section		
Number		
I.	Title-	The title by which the technique, model or procedure is most commonly known
	Acronym	The acronym by which the technique, model or procedure is most commonly known
2.	Purpose	A brief description of the primary areas in which the tool is intended to be used.
3.	Additional	
	information	
	Users	This records who the end users of the model are.
	Frequency	This section provides information on how often the model is used - i.e. whether the model is
	7. 61	used routinely, periodically (e.g. every few weeks) or as a specialist tool (e.g. used occasionally
		by experts)
	Development	This identifies the state of development of the model: there may be no plans to revise/update the
	4	model (none); the Agency may currently be discussing whether revisions to the model are
		necessary (arguing revision); or the model may currently be undergoing revision (being
		revised).
	License	This identifies the license conditions of the model: whether the model has been developed
	conditions	commercially and requires license (licensed product) or whether it is freely available; if the
		tool is a licensed product, how many license holders does the Agency hold?
4.	General	This section provides an initial categorisation to identify those areas of the Environment
	Assessment	Agency's remit to which the model or procedure may be applicable.
	Media	The media to which the model/procedure is, or may be, applied. Where it may be applied to
	***	waste in addition to one of the three primary media, this is also identified.
	Function	The core functions of the Environment Agency to which the model/procedure may be
		applicable. This may reflect its current use or an area of potential use which would not require
		significant development work.
	Purpose	The modus operandi of the Environment Agency, within the functions identified above in which
		the model/procedure is most commonly used. Regulation includes the determination of
1.5		authorisations, consents and licences. Operational includes routine environmental managemen
		as well as enforcement issues. Planning relates primarily to the planning of the Environment
		Agency's activities. Prioritising relates primarily to identifying those issues which pose greatest
		risk to the environment.
	Risk Assessment	This section identifies the risk assessment basis of the model/procedure. The model/procedure
		will be qualitative, semi-quantitative or fully quantitative. It will contribute to the setting of the
		criteria by which the severity of risks can be determined or it will be involved in the severity
		assessment itself. For those models recorded, the basis may be probabilistic or deterministic,
		and some may feature a stochastic simulation capability (e.g. monte-carlo simulation). Finally,
		the tool will be used for either risk assessment or determining risk management option.
5.	Further	This section provides a further categorisation of the model/procedure and in particular, focuse.
	Assessment	on the specific features provided.
	Coverage	This records whether the model/procedure is used on a site-specific basis, whether it can
		address issues across a catchment or region in one operation, or whether it can assess risks
		across England and Wales in one operation.
	Туре	This section records the form the model/procedure takes. It will be either procedural or
		mathematical/statistical, and it may cover a range of potential risks/effects from physical issues
		such as flood water to chemical and radiochemical pollutants.
	System Base	This sets out the form the model/procedure is made available to the user. It also identifies
		whether the model/procedure has been developed in-house or with third party support.
	Timescale	This sets out over what timescale those models recorded can be applied. If developed by/with
		third party support, please specify.
	Resolution	This covers the spatial resolution of the model
5.	Cross-Reference	
	Regulatory	This identifies how the model relates to the regulatory process
	processes	
	Standards	This identifies the standards and targets against which the model/procedure assesses the
		severity of the risk being determined.
	Databases	This identifies the databases required for the model/procedure to operate effectively.
6.	Comments	
	Contact	Provides a principal point of contact for further information on the use or further development
		of the model/procedure. Many of the contacts noted have developed a particular expertise and
		level of experience in the use of the model/procedure.

## ANNEX 1

Environment Agency Register of Risk Assessment Tools: Summary Table

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Environmental Impact Assessment	SR 001	EIA	Technical guidance on scoping and a comparison volume on further prescriptive guidance to primarily assist external developers on how to assess the environmental impact of projects and schemes, how to reduce risks to the environment from such schemes, and how best to develop mitigating measures.
Strategic Risk Assessment Methodology	SR 002	SRAM	This methodology has been developed to enable comparative assessments of environmental impacts at the strategic level.
R&D Prioritisation spreadsheet	OTH 001		To provide a standard, consistent method for collating and prioritising R&D proposals based on the Agency.
European Union system for the Evaluation of Substances, version 1.0.	OTH 002	EUSES	

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Hull Acid Rain Model	PIR 001	HARM	This model is used for the calculation of the concentration and deposition of sulphur and nitrogen pollutants over the UK and creating deposition maps.
Meso and Regional Scale Pollutant dispersion and Deposition Model	PIR 002	NAME II	To calculate and forecast pollutant concentration and deposition. It is used for retrospective episodes of analysis of poor air quality.
United Kingdom Air Dispersion Modelling System	PIR 003	UKADMS	Calculation of short-term - long-term ground level pollutant concentrations for released to air (air dispersions model).
	PIR 004	AERM	
	PIR 005	SURSER	
	PIR 006	DISTAR	
Operator and Pollution Risk Appraisal	PIR 007	OPRA	OPRA assess several aspects of the performance of an operator to provide an indication of probability of an occurrence of an undesirable event and the consequences of the event. These factors are combined to give an indication of comparative risks.
Uniform System for the Evaluation of Substances	PIR 008	USES	USES is a tool that can be used for rapid quantitative assessments of the general risks of substances. USES may be applied to risk assessment and to set priorities for new and existing substances.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Validity Analysis of Disposal	RAS 001	VANDAL	VANDAL is central to the Agency's quantitative risk assessment
Alternatives			capability, providing estimates of risk to man, over long time scales, from
			radionuclide releases from radioactive waste disposal facilities.
WOLFNET	RAS 002	WOLFNET	WOLFNET is the flow sub-model in VANDAL and provides groundwater
<u> </u>			flow predictions for the transport sub-model in VANDAL.
DECOS-MG	RAS 003	DECOS-MG	Dynamic modelling of radionuclide migration within the surface
			environment.
TIME4	RAS 004	TIME4	This methodology is being developed to enable risk assessments for other
			techniques to be normalised in order to establish priorities across the remit
•			of the Environment Agency.
Chemical Transport Adsorption	RAS 005	CHEMTARD	CHEMTARD is a coupled chemical transport code used to determine the
Redox and Delay Model	3.		migration of radionuclides through the geosphere.
pH Redox Equilibrium Equations	RAS 006	PHREEQE	The PHREEQE computer program is designed to modelling geochemical
			reactions. Based on an ion pairing model, PHREEQE can calculate pH,
			redox potential, and mass transfer as a function of reaction progress.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Part IIA EPA 1990. Handbook, Guidance Notes and Supporting Manuals.	LQ 001		To describe the process to be adopted by the Agency when exercising regulatory control under the contaminated land provisions of Part IIA of the Environmental Protection Act 1990. The Handbook also provides links to associated Agency documentation (i.e. guidance notes and supporting manuals).
Model Procedures for the Management of Contaminated Land.	LQ 002		To provide a structured framework and procedural guidance for the identification, treatment and monitoring of contaminated land.
Contaminated Land Exposure Assessment	. LQ 003	CLEA	Estimating likely human exposure for contaminants in soils for the development of guideline values to indicate whether there are any unacceptable long-term risks to human health.
Short Term Risks	LQ 004		Development of model to assess short-term risks to human health.
Buildings Risk	LQ 005		Guidance on assessing and managing risks from contamination to building materials including specific regulatory guidance for Part IIA.
Ecosystem Risk from Contaminated Land	LQ 006	ECORCL	To assess the risks to ecosystems from contaminated sites.
ConSim	LQ 007	ConSim	ConSim has been developed to help an assessor predict the impact of leaching of contaminants from land contamination on the quality of controlled waters (and GW in particular). ConSim uses Monte Carlo techniques to provide probabilistic output of predicted impact on water quality arising from the migration of contaminants. ConSim considers biological, physical and chemical process (and 1st order radioactive decay if applicable) acting to attenuate pollutants within the system.
Methodology for the derivation of remedial targets for soil and groundwater to protect water resources.	LQ 008		Guidance on risk management requirements for contaminated soils and groundwater to prevent pollution of the aquatic environment. This methodology compliments the ConSim software tool.
Validation of Analytical Techniques for Laboratory Analysis of Soil.	LQ 009		To provide Quality Assurance in Laboratory Analysis of Soil.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
River Quality Planning	WQ 001	RQP	A collection of stochastic programmes for predicting the impact of single discharges includes RQI and CONCLASS.
Simulation of Catchments	WQ 002	SIMCAT	The prime purpose is to calculate the effect of discharges and other types of pollution and abstractions on the statistical distributions of river water
			quality throughout a catchment. It is primarily used as a consent setting tool.
Temporal Overall Model for	WQ 003	TOMCAT	TOMCAT may be used as a tool for consent setting in order to achieve
Catchments			river quality standards and may also be used as a planning tool to model,
			for example, phosphate to assist targeting investment. It is an essential
	***		tool for calculating consent standard for effluent discharges in catchments
		Ĭ.	where there might be several works affecting the river quality, or where it is important to predict dissolved oxygen levels.
Quality Simulation Along Rivers	WQ 004	QUASAR	QUASAR is a predictive model to assess the effect of developments and
:			changes within the catchment (for example, drainage and sewerage
			changes - more stringent consents etc) on river quality. QUASAR may be
	*		used in both a dynamic and a planning capacity.
Estuarine (Contaminant) Shell	WQ 005	ECoS	ECoS is a shell or framework for modelling contaminants such as dangerous substances in estuaries.
MIKE - 1 Dimensional and 1	WQ 006	MIKE11	MIKE11 is an engineering software package for the simulation of flows,
Layered		57,	water quality and sediment transport in estuaries, rivers, irrigation
			systems, canals and other water bodies.
			Grant Control of the
Quality of Estuaries Simulations	WQ 007	QUESTS	QUESTS models estuarine quality particularly with respect of discharges
		-5" (3)	and how consent conditions may be determined to improve water quality and target investment.
TIDEWAY	WQ 008	TIDEWAY	2-D Vertical modelling in Estuaries.
Aggregated Dead Zone	WQ 009	ADZ	Assessing the time of arrival of a polluting discharge during an incident.
POLLUX	WQ 010	POLLUX	
Construction of Bunds for Oil	WQ 011		To define cost effective storage protection facilities to reduce the risk of
Storage			(oil) pollution of controlled waters.
Farm Activity and River	WQ 012	FARMS I&II	FARMS I & II is a distributed catchment scale model to simulate the run-
Management System			off of water and the transport of pollutants arising from farm wastes, into
in i	167	<u> </u>	rivers. It is used for developing farm waste management plans.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Simulation of Catchments	WQ 013	SIMCAT	Stochastic modelling of water quality in catchments. It is used as a
			consent setting tool.
Temporal Overall Model for	WQ 014	TOMCAT	Stochastic modelling of water quality in catchments. It may be used as a
Catchments			tool for consent setting in order to achieve river quality standards and may
			also be used as a planning tool to model, for example, phosphate to assist
Laid AD Aire LA Con-	140 016	IDIO	targeting investment.
Incident Reaction Interface	WQ 015	IRIS	IRIS is a time of travel calculation model for assessing the length of time
System			taken for a pollutant to travel down a catchment to potable water intakes.
Pollution Prevention Manual	WO 016		The models primary function is for intake protection purposes.
Pollution Prevention Manual	WQ 016	î.	To provide consistent guidance to all Environment Agency field officers
			on pollution prevention issues including site visits, risk assessment and
Pollution Prevention Site Visits	WQ 017		risk management.
Pollution Prevention Site Visits	WQUIT		To assess and manage risk on wide ranging types of site to prevent pollution and improve water quality. All regions undertake some form of
			PP activity.
Works Notice Risk Assessment	WQ 018		To provide a consistent basis for deciding whether a works notice should
Forms	WQ 018	1. (-)	be served to prevent water pollution.
Prediction of Pesticide Pollution	WQ 019	POPPIE	Prediction of Pesticide Pollution in the Environment.
in the Environment	110017	TOTTLE	rediction of resticide rollation in the Environment.
FARM Pollution Prevention Visit	WQ 020		Consistent data collection of farm storage facilities and risk assessment of
Proforma			storage operations.
Pollution Risk from Accidental	WQ 021	PRAIRIE	To predict consequences of accidental releases of chemicals into water
Influx to Rivers & Estuaries			courses.
Urban Pollution Management	WQ 022	UPM Manual	The UPM Manual is designed to deliver adequate environmental
Manual			protection at least cost for intermittent discharges of urban sewage. This
			is achieved through the planning process and the use of specific tools
			developed for the purpose.
Decision Support Tool	WQ 023	DECIST	Make better decisions when deciding levels of data collection in urban
			pollution management studies.
Catchment Inventory system	WQ 024	CATCHIS	CATCHIS is a system for evaluating the risk of specific pesticides being
	1110 005	000	present in specified surface water and groundwater locations.
Source Protection Zones models	WQ 025	SPZs	Source Protection Zones have been developed to define areas in which
& maps			activities could impact groundwater abstraction.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Groundwater Vulnerability Maps	WQ 026		Groundwater Vulnerability Maps have been produced to define the vulnerability of groundwater in any specific location regardless of use.
Rapid Risk Assessment Methodology	WQ 027		To provide consistent approach to risk assessment at industrial sites (non IPC sites).
Discharge Consent Manual	WQ 028		The discharge Consent Manual is a collection of Agency's policies for the determination of Consents for discharges. The Manual covers the legal & technical basics for ensuring the protection of WQ. The manual is a dynamic document subject to continual reviews & addition.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
LandSim	WP 001	LandSim	LandSim allows the assessor to predict the impact of pollutants in a
			landfill site on the quality of controlled waters (particularly groundwater).
			The model considers leachate chemistry, engineering performance of
			containment and leachate collection systems and processes acting in the
	-3		unsaturated zone to attenuate pollutants before they reach the waterhole.
OPRA for Waste	WP 002		OPRA for Waste provides a straightforward characterisation of the overall
		Waste	environmental risk from waste disposal or recovery operations by
- 1 · 1			providing an indication of an occurrence of an undesirable event and the consequences of the event. These factors are combined to give an indication of comparative risks and are used to determine the frequency of
		,	inspections at sites.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Flood Defence Management	FD 001	FDMS	The main purpose is to identify the need for capital/revenue expenditure
System			and to determine the prioritisation and justification of that expenditure.
Flood Studies Report (PC Based)	FD 002	MICROFSR	FSR is used for estimation of design flows for ungauged catchments.
			Flows are estimated at one point in the catchment only.
River Basin Management Model	FD 003	RIBAMAN	FSR is used for estimation of design flows for ungauged catchments.
			Flows are estimated at one point in the catchment only.
Frequency Simulation (of Flood	FD 004	FRQSIM	FSR is used for estimation of design flows for ungauged catchments.
Flows)		ļ	Flows are estimated at one point in the catchment only.
Rainfall Run-off (on Burrows	FD 005	RORB	RORB is used for estimation of design flows on catchments with some
Computer)			gauging.
Regional Flow-Forecasting	FD 006		The Regional Flow-Forecasting System relies on output from one of three
system			models (Isolated Event Model/Thames Conceptual Model/Probability
24	i		Model) to forecast flood events in river catchment zones.
ISIS	FD 007	ISIS	ISIS has been developed from ONDA and SALMON and it models flows,
			water quality and sediment transport in complex river and channel
			networks.
Hydrological Engineering Centre	FD 008	HEC 2	HEC 2 is a backwater model for ascertaining water levels along a reach of
2			river or open channel for a steady flow rate.
Backwater Programs (Generic)	FD 009		Backwater programs are used to estimate water levels given in-channel
			geometry and roughness and a steady flow.
MIKE – 2 Dimensional and 1	FD 010	MIKE21	MIKE21 is a comprehensive modelling system for 2D free surface flows
Layered			and is applicable to hydraulic and related phenomena in lakes, estuaries,
4.			bays and coastal areas.
NAM (Hydrological Model)	FD 011	NAM	NAM is a deterministic conceptual lumped model representing the land
			phase of the hydrological cycle. It is based on physical and semi empirical
	(0+)0		formulations.
Forecasting Rain Optimised using	FD 012	FRONTIERS	The state of the s
New Techniques of Interactively			forecasts for flow prediction.
Enhanced Radar and Satellite			
Data.			
Local Rainfall Forecasting System	FD 013		The Local Rainfall Forecasting System is an advection model that models
			the speed and direction of rainfall and can forecast up to two hours ahead.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Generating Advanced Non-Casts	FD 014	GANDALF	GANDALF is an operational thunderstorm warning procedure for use
for Deployment in Operational		İ	with river flood forecasting systems.
Land-surface Flood-Forecasting			
Simple Practical Application of	FD.015	SPACE	SPACE is a technique for assessing risk to flood defences, including the
Collective Experience (Rapid			risk of failure of such flood defences.
Risk Assessment Methodology)			
Risk Assessment for Sea and	FD 016		This methodology has been developed to provide a detailed quantitative
Tidal Defences			risk assessment procedure including probabilistic failure analysis and
			assessment of areas of flooding. This methodology is designed to
			compliment the SPACE Methodology and act as a second tier detailed
	*		assessment.
Indicative Floodplain Maps	FD 017	IFM	Show areas within which the Agency carries out flood defence function
	•		(coastal and fluvial) in accordance with Circular 30/92.
Flood Estimation Handbook	FD 020	FEH	FEH is used for estimation of design flows for ungauged sites. It is a
			development of the flood standing report.
Database of Erosion Deposition	FD 021		Database of 1500 reported flooding and erosion events in Britain from
and Flooding			1770 to present. Developed by DETR to inform planning guidance.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
River Habitat Survey	CO 001	RHS	To determine River habitat quality in the context of river type and level of physical modification.
River Corridor Survey	CO 002	RCS	To provide information on the plant communities and land use along watercourses.
Landscape Assessment	CO 003		To provide information on landscape character of river corridors.
Habitats Directive Review	CO 004		To review all consents / activities affecting Habitats and Birds Directive sites
Planning applications screening process	CO 005		To prioritise planning applications for consultation with conservation staff.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
FLOWPATH	WR 001	FLOWPATH	Flowpath is a propriatory model which is applied in the determination of Groundwater Protection Zones. The model may also be applied in groundwater pollution incident investigation. It is a 2D steady state numerical groundwater flow model.
MODFLOW/MODPATH	WR 002	MODFLOW	MODFLOW is a finite difference groundwater model for modelling time variant flow in anisotropic, heterogeneous, layered aquified systems.  These models are 2D/3D Steady State/Time Variant Groundwater flow and particle backing models.
RESPLAN	WR 003		Least cost economic prioritisation of resource Development scheduling / resource allocation modelling
Finite Difference Code	WR 004	BU	BU is a finite difference groundwater model for modelling time/variant flow in anisotropic, heterogeneous, layered aquifer systems. These models are 2D/3D steady state/time variant groundwater flow and particle tracking method.
Integrated Catchment Management Model	WR 005	ICMM	This is a finite difference groundwater model for modelling transit flow in anisotropic, heterogeneous layered aquifer systems.
Single Layer Finite Difference Code.	WR 006	SLAY	This is a finite groundwater model for modelling transient flow in anisotropic, heterogeneous, single layered, aquifer systems.
MIKE – System Hydrologique Europeane	WR 007	MIKE SHE	MIKE SHE is a dynamic modelling tool for the analysis planning and management of water resources and environmental problems related to surface water and groundwater, in particular to assess potential impact of human activities.
Well Head Protection Area	WR 008	WHPA	The Well Head Protection Area Model is utilised for derivation of Groundwater Protection Zones. The model is a 2D steady state numerical groundwater flow model.
Surface Water Abstraction Licensing Procedure	WR 009	SWALP	The determination of surface water abstraction licence applications
Micro Low Flows V21	WR 009		Used to estimate natural and artificial infiltrated flow statistics at ungauged river sites.
Water Resources Model	WR 010	WRM	Water Resources Planning. WRM helps evaluate the capability of existing and proposed WR Development toward meeting target levels of service of consumption given existing and forecast demands against known hydrologic performance.

TITLE	FORM REF.	ACRONYM	MODEL PURPOSE
Thames Catchment Model River Flow Generation	WR 011		To generate sequences of possible future river flows for different rainfall scenarios used in conjunction with the Thames WR model (for reservoirs). River Flows + reservoirs = Drought Management Model.
Drought Management System	WR 012	DMS	Operational planning and management of water resources. Provides a broad assessment of risk of resource/supply failure given statistical likelihood of different rainfall scenarios given actual reservoir storage and run off at that time.
Bursts and Background Estimates	WR 013	BABE .	To estimate the level of leakage of water from distribution system.
Demand Forecasting Model	WR 014	DFM	To forecast public water supply demands for the future.

. Title Environmental Impact A	ssessment	Form Rel SROO1
Model Purpose		Acronym EIA
echnical guidance on scoping and	a comparison volume on further prescr	iptive guidance to primarily assist external
		mes, how to reduce risks to the environment
om such schemes, and how best to	develop mitigating measures.	
sers: Operational, functional	planning liaison staff. Mainly used b	স
_	is, industry, although it applies to Agenc	2)
when considering a deve	elopment.	1
requency	Development	License
46		
outine 🗸	None	Licensed
eriodic	Arguing revision	If so, number
ccasionally	Being revised	Free
General Assessment	Under development	
Ocher al Assessment		
ledia .	Function	Risk Assessment
ir 🔽	Water Quality	Qualitative
and 🗸	Water Resources	Semi-Quantitative ✓
/ater	Flood Defence ✓	Quantitative
aste 🗸	Fisheries	Criteria
<del></del>	Rec & Nav	Assessment ✓
urpose	Conservation	Probabilistic/Determ /
egulation	PIR /	Stochastic
perational  Janning	Radioactivity Waste Policy	Risk Assessment Risk Management
rioritising	Land Quality	ixisk tvianagement
	<u> </u>	_
Further Assessment		
overage	Туре	System Base
te Specific	Procedural /	Paper
atchment	Mathematical	PC - DOS PC - Windows
egional ational	Statistical Chemical	UNIX/Mainframe
ational	Physical -	
mescale	Biological /	In-House
solution	Radioactivity	Third Party
Links to Standards, Targets as	nd Datahases (Cross-reference)	
	ia paravases (Civis-i citi thtt)	
andards DETR legislation + Gui	dance; other best Database	s
Principe Ruluance.	,	
Comments	-	
uidance documents are currently	being updated and are due to be comple	ted in the summer of 2000.
	G .F	

. Title Strategi	c Risk Assessmen	t Methodology	Form RefSR002
. Model Purpose			Acronym SRAM
his methodology	has been develope	d to enable comparative assessments o	f environmental impacts at the strategic level.
sers: Potentia	al prioritisation of	I FAPS	
Totellin.			
requency		Development	License
toutine		None	Licensed N/A
eriodic		Arguing revision	lf so, number
ccasionally	<b>√</b>	Being revised	Free
_	<del></del>	Under development	
. General Assess	sment		+*
ledia		Function	Risk Assessment
\ir		Water Quality	Qualitative
and	<del></del>	Water Resources	Semi-Quantitative
Vater		Flood Defence	Quantitative
Vaste	7	Fisheries	Criteria
	\	Rec & Nav	Assessment
urpose		Conservation	Probabilistic/Determ
Regulation		PIR 🗸	Stochastic
Operational		Radioactivity	Risk Assessment
lanning		Waste Policy	Risk Management
rioritising		Land Quality	
. Further Assess	sment		
overage		Туре	System Base
lite Specific		Procedural	Paper -
Catchment		Mathematical /	PC - DOS
Regional	7	Statistical	PC - Windows
Vational		Chemical	UNIX/Mainframe
F*		Physical Siological	In-House
limescale Resolution		Biological Radioactivity	Third Party
i. Links to Stand	lards, Targets an	d Databases (Cross-reference)	
			December 1997 of the Control of the
Standards Dependence		e of intention and Databas	es Dependent upon the type of intention and consequences.
5. Comments			
This methodology	is currently unde	development but has reached proof of	concept stage and been piloted on LEAPS and
	Environment Rep		The state of the s

Title R&DP	rioritisation spreads	heet		Form RelOTH 00	l
Model Purpose			<del></del>	Acronym	- 1
	·				
o provide a stand	ard, consistent met	nod for collating and priori	lising R&D proposal	s based on the Agency	'.
		¥ 4	····		
sers: R&DP	rogramme Officers	& Topic Leaders			
	-				
requency		Development		License	
Coutine	Г	None		Licensed	
Periodic	7	Arguing revision	7	If so, number	
Occasionally		Being revised		Free	<b>-</b>
6. General Assess	ment	Under development			
. Ocheral 455625	ment				
vledia		Function		Risk Assessment	
Air		Water Quality		Qualitative	
and		Water Resources		Semi-Quantitative	1
Vater	7	Flood Defence	<b>—</b>	Quantitative	
Vaste	<b>-</b>	Fisheries		Criteria	
Purpose		Rec & Nav Conservation	<del></del>	Assessment Probabilistic/Determ	_
Regulation		PIR	<del>                                     </del>	Stochastic	"
Operational		Radioactivity	7	Risk Assessment	
lanning		Waste Policy	<u> </u>	Risk Management	
rioritising		Land Quality	1.		
. Further Assess	ment				
Coverage		Туре	•	System Base	
Site Specific		Procedural		Paper	
Catchment		Mathematical		PC - DOS	
legional		Statistical		PC - Windows	
lational		Chemical Physical	<b>—</b>	UNIX/Mainframe	
imescale		Biological	<del>  </del>	In-House	
esolution		Radioactivity		Third Party	
. Links to Stand:	ards, Targets and	Databases (Cross-referen	ce)		
tandards	<del></del>	<u> </u>	Databases R&D M	IS	
			Selected (W.	14	
Comments			1 * 1		
	<u> </u>				
100	4	*			

Environment Ag Register of Risk		is: Part 1 - Models :	and Procedures			
1. Title European	Union system for	the Evaluation of Substan	nces, version	Form Ref	OTH002	1
2. Model Purpose				Acronym	EUSES	]
	12.0	Ų.				]
Users: Chemical	ls Assessment Unit					
Frequency	-	Development		License	** . <b>k</b> .	
Routine Periodic Occasionally	7	None Arguing revision Being revised Under development		Licensed If so, number Free	1	]
3. General Assessn	nent	10				
Media		Function	*	Risk Assessment		
Air Land Water Waste	<i>y y y</i>	Water Quality Water Resources Flood Defence Fisheries Rec & Nav		Qualitative Semi-Quantitative Quantitative Criteria Assessment	7	
Purpose Regulation Operational Planning Prioritising		Conservation PIR Radioactivity Waste Policy Land Quality	<b>* * * * *</b>	Probabilistic/Determ Stochastic Risk Assessment Risk Management		
4. Further Assessn	nent					
Coverage		Туре		System Base		
Site Specific Catchment , Regional National	1	Procedural Mathematical Statistical Chemical Physical	7	Paper PC - DOS PC - Windows UNIX/Mainframe	<u> </u>	
Timescale Resolution		Biological Radioactivity		In-House Third Party	1	3
5. Links to Standa	rds, Targets and [	Databases (Cross-refere	nce)			
Standards PEC/PN	EC ratio of I		Databases Non	e required.		0.
6. Comments	4.0					_
scale for a generic e	invironment, and to	compare these with prec	licted no effect con	ustrial chemicals on a local, icentrations (PNECs). A value an Member States, the Europe	riety of release scenarios	
Contact Steve Ro	obertson	Location: NCEHS		Tel:	01491 828 555	7

ł

.-

Environment Agency	A	4	
<del>-</del> -	nt Tools: Part 1 - Models and Proce	edures	
1. Title Hull Acid Rain Mod		Form Ref PIR001	-1
9			
2. Model Purpose		Acronym HARM	
		it of the state	
	lation of the concentration and deposition of	f sulphur and nitrogen pollutants over the	UK
and creating deposition maps			
Users: Under contract by He	ead Office	7	
requency	Development	License	
rrequency	Development	Ercise	
Routine	None	Licensed N/A	
Periodic	Arguing revision	If so, number	
Occasionally	Being revised	Free	i
3. General Assessment	Under development		
J. General Assessment			
Media	Function	Risk Assessment	
Air /	Water Quality	Qualitative	
Land 7	Water Resources	Semi-Quantitative	
Water	Flood Defence	Quantitative	
Waste	Fisheries	Criteria	$\neg$
	Rec & Nav	Assessment	$\overline{}$
Purpose	Conservation	Deterministic	$\overline{}$
Regulation	PIR 🗸	Stochastic	
Operational	Radioactivity	Risk Assessment	
Planning	Waste Policy	Risk Management	
Prioritising	Land Quality	<u> </u>	
4. Further Assessment		,	
C	**************************************	Sunta - Bass	
Coverage	Туре	System Base	
Site Specific	Procedural	Paper	$\neg$
Catchment	Mathematical /	PC - DOS	$\neg$
Regional	Statistical	PC - Windows	$\overline{}$
National 🗸	Chemical -	UNIX/Mainframe	
<del></del>	Physical		
Timescale Annual	Biological	In-House	, =
Resolution 10km	Radioactivity	Third Party	
5. Links to Standards, Targets	and Databases (Cross-reference)		
Air quality standard and nitrogen oxides a	- I	es Land cover databases, altitude, and rai	ntall
6. Comments	Ţ		
This model is a fact of the	the Hamilt Training No. 21 1 This are	del is currently used by the DETP A	1
Environment Quality division.	the Harwell Trajectory Model. This mo	uer is currently used by the DETK, Al	וונה
The state of the s			
Contact Dr Colin Powlesland	Location: London	Tel: 7 10 6827	
l	1470	- 3,0	

. Title Meso and Regiona Model.	Scale Pollutant dispersion and Deposition	Form Ref PIR002
. Model Purpose		Acronym NAME II
o calculate and forecast pollution of calculate and forecast pollution.	ant concentration and deposition. It is used for r	etrospective episodes of analysis of poor
sers: Regional PIR Office		
	···	
requency	Development	License
outine	None /	Licensed N/A
eriodic	Arguing revision	If so, number
ccasionally	Being revised	Free
	Under development	<u> </u>
. General Assessment	-	
fedia	Function	Risk Assessment
ir 🔽	Water Quality	Qualitative
and ——	Water Resources	Semi-Quantitative
/ater	Flood Defence	Quantitative
/aste	Fisheries	Criteria
	Reg & Nav	
		Assessment
urpose	Conservation	Deterministic
egulation	PIR 🗸	Stochastic
perational	Radioactivity	Risk Assessment
lanning	Waste Policy	Risk Management
noritising	Land Quality	1+1
. Further Assessment		
overage	Туре	System Base
ite Specific	Procedural	Paner
atchment	- · · · · · · · · · · · · · · · · · · ·	Paper PC - DOS
<b> </b>	· · · · · · · · · · · · · · · · · ·	<b>1</b>
· T	Statistical	PC - Windows
ational Global	Chemical	UNIX/Mainframe
(9) (1) (1) (1) (1) (1) (1) (1)	Physical <	
imescale	Biological	In-House
esolution	Radioactivity	Third Party
Links to Standards, Target	s and Databases (Cross-reference)	
randondo (408 8 t t		
andards AQS: Sulphur and N	dr dr	used on the global forecasting model and aws on global and European emission tabases.
Comments		
		- <del></del>
he Agency pays for the use of	this model on a contract basis.	

culation of short-term - long-term ground level pollutant concentrations for released to air (air dispersions model)  res:    quency	Model Purpose  culation of short-term - long-term gro  crs:  quency  atine iodic casionally  General Assessment	None. Arguing revision Being revised Under development	License  Licensed  If so, number	spersions model).
guency  Development  License  License  Licensed  If so, number  Free  Under development  dia  Function  Risk Assessment  dia  Function  Risk Assessment  Water Quality  Water Resources  Flood Defence  Frisheries  Rec & Nav  Conservation  PIR  Vaster Navessment  Assessment  Conservation  PIR  Vaster Policy  Undarional  Radioactivity  Waster Policy  Land Quality  Waster Policy  Land Quality  Vaster Policy  Risk Assessment  Vaster Fisheries  Rec & Nav  Conservation  PIR  Vaster Policy  Land Quality  Vaster Policy  Risk Assessment  Vising  Vaster Policy  Land Quality  Vaster Policy  Risk Assessment  Visits Management  Further Assessment  Verage  Type  System Base  Specific  Procedural  Mathematical  PC - DOS  In-House  Johnstoic  License  Licens	equency atine iodic casionally	None. Arguing revision Being revised Under development	License  Licensed  If so, number  Free	
Arguine None Arguing revision If so, number Free Under development	equency atine iodic casionally	None Arguing revision Being revised Under development	Licensed If so, number Free	
Arguing revision Being revised Under development  General Assessment  dia  Function  Risk Assessment  dia  Function  Risk Assessment  Arguality Water Quality Water Resources Flood Defence Flood Defence Fisheries Rec & Nav Conservation PIR Fractional Radioactivity Waste Policy Land Quality Water Assessment  Further Assessment	iodic casionally	None Arguing revision Being revised Under development	Licensed If so, number Free	
Arguing revision Being revised Under development  General Assessment  dia  Function  Risk Assessment  dia  Function  Risk Assessment  Arguality Water Quality Water Resources Flood Defence Flood Defence Fisheries Rec & Nav Conservation PIR Fractional Radioactivity Waste Policy Land Quality Water Assessment  Further Assessment	iodic casionally	None Arguing revision Being revised Under development	Licensed If so, number Free	
Arguing revision Being revised Under development    General Assessment	iodic casionally	Arguing revision Being revised Under development	If so, number Free	
Being revised Under development  General Assessment  dia  Function  Risk Assessment  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Assessment  Assessment  Conservation PIR Assessment  Ass	casionally	Being revised Under development	Free	
Being revised Under development Under Semi-Quantitative Under Semi-Quantitative Under Semi-Quantitative Under Semi-Quantitative Under Stee Fisheries Criteria Rec & Nav Assessment Under Assessment Under Un		Being revised Under development	Free	
General Assessment  dia  Function  Risk Assessment  dia  Function  Risk Assessment  dia  Function  Risk Assessment  Author Quality  Water Quality  Water Resources  Semi-Quantitative  Criteria  Rec & Nav  Assessment  Pose  Conservation  PIR  Fisheries  Radioactivity  Risk Assessment  Fundation  PIR  Function  First Assessment  Fundation  First Assessment  Fundation  First Assessment  Fundation  Functional  Radioactivity  Risk Management  Further Assessment  Further Assessment  Further Assessment  Fundation  Funda		Under development		
General Assessment  dia  Function  Risk Assessment  Water Quality  Water Resources Flood Defence Flood Defence Fisheries Rec & Nav Conservation PIR Vater Assessment  PIR Vater Policy PIR Vater Policy Policy Portising Vater Resources PIR Vater Policy PIR Vater Policy Policy Portising Vater Policy Policy Portising Vater Policy Portising Vater Policy Po	General Assessment	(		
Water Quality Water Resources  Flood Defence Fisheries Rec & Nav Conservation PIR Funding Funding Waste Policy Land Quality Further Assessment Fur		Function		
defer   Water Resources   Semi-Quantitative   General	dia		Risk Assessn	nent
defer   Water Resources   Semi-Quantitative   General	<del></del> 1	Wasar Ouality	Onalitativa	
Flood Defence Fisheries Ste Fisheries Rec & Nav Assessment Pose Unitation PIR PIR Pisheries Radioactivity Risk Assessment Pining Waste Policy Risk Management Purther Assessment Purther		- <u> </u>		
Fisheries Rec & Nav Conservation PIR				<del></del>
Rec & Nav Conservation PIR Pose Conservation PIR Radioactivity Risk Assessment Post Risk Assessment Post Risk Management Portising Portitional Radioactivity Risk Management Portitional P	<u> </u>		-	
pose Conservation PIR Stochastic PIR Radioactivity Risk Assessment Risk Management Puritising Land Quality System Base  Specific Procedural Paper PC - DOS PC - Windows UNIX/Mainframe Physical	ste		Criteria	
PIR Radioactivity Risk Assessment Risk Management Puritising V Land Quality Risk Management Puritising V Risk Management Risk Management Puritising V Risk Management Risk Management Puritising V Risk Management Risk Management Risk Management Puritising V Risk Management Risk Management Puritising V Risk Management Ris		Rec & Nav	Assessment	
Radioactivity Waste Policy Risk Management  Further Assessment  Verage Type System Base  Specific Procedural Paper Chment Mathematical PC - DOS Identical Physical VIX/Mainframe  Physical Physi	pose	Conservation	Deterministic	· /
Waste Policy Land Quality  Further Assessment  Verage  Type  System Base  Specific Chement Jonal	ulation 🗸	PIR	/ Stochastic	
Further Assessment  Further Assessment  Foreign Type System Base  Specific Procedural Paper Chement Mathematical PC - DOS Jonal Chemical PC - Windows Jonal Chemical UNIX/Mainframe Physical UNIX/Mainframe Physical In-House Jolution Radioactivity In-House Links to Standards, Targets and Databases (Cross-reference)  Indards All relevant air quality standards  Databases METDATA from met office  Comments  Comments	rational	Radioactivity	Risk Assessm	ient 🗸
Further Assessment  Further Assessment  Further Assessment  Foreign Type System Base  Specific Procedural Paper Chement Mathematical PC - DOS Joinal Statistical PC - Windows Joinal Chemical UNIX/Mainframe Physical UNIX/Mainframe Physical In-House Joinal Radioactivity In-House Links to Standards, Targets and Databases (Cross-reference)  Indards All relevant air quality standards All relevant air quality standards  Databases METDATA from met office  Comments  Comments	uning		Risk Manage	ment
Specific Procedural Paper Paper Procedural PC - DOS PC - DOS PC - Windows PC - Windows Physical Physic	oritising			
Specific	Further Assessment			
Specific		Tune	System Rase	
chment		турс	System Dase	
Statistical Chemical UNIX/Mainframe  Physical UNIX/Mainframe  Physical In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Indards All relevant air quality standards and targets  Databases METDATA from met office  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	Specific /	Procedural		
Chemical Physical In-House In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Indards All relevant air quality standards and targets  Comments  Televant a view to giving a more accurate picture of dispersion and to deal with complex	chment /	Mathematical	PC - DOS	
Physical  Physical  Biological Radioactivity  Third Party  All relevant air quality standards and targets  Comments  Televant a view to giving a more accurate picture of dispersion and to deal with complex	ional	Statistical	PC - Window	s 🗸
Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Idards All relevant air quality standards Databases METDATA from met office and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	ional	Chemical	UNIX/Mainfi	ame
Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Idards All relevant air quality standards Databases METDATA from met office and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	<u> </u>	Physical	7	
Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Idards All relevant air quality standards Databases METDATA from met office and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex		-		
Links to Standards, Targets and Databases (Cross-reference)  Idards All relevant air quality standards and targets  Databases METDATA from met office  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	• · · · · · · · · · · · · · · · · · · ·			
Databases METDATA from met office and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	olution	Radioactivity	Third Party	1
and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex	Links to Standards, Targets and Da	tabases (Cross-reference)		-
and targets  Comments  del was developed with a view to giving a more accurate picture of dispersion and to deal with complex		N. Jan		
del was developed with a view to giving a more accurate picture of dispersion and to deal with complex		ds Data	bases METDATA from met of	hce
	Comments	•		
		4	<u> </u>	
	del was developed with a view to give graphy.	ving a more accurate picture	of dispersion and to deal with t	complex

I

1. Title		<del></del>		Form Rei PIRO04
2. Model Purpose	· ·			Acronym AERM
Users:				
Frequency		Development		License
Routine	<del></del>	None		Licensed
Periodic		Arguing revision	5.	If so, number
Occasionally =	<del> </del>	Being revised		Free
		Under development		
3. General Assessment	•			
M. 12-		- ·		
Media		Function		Risk Assessment
Air -	$\neg$	Water Quality		Qualitative
Land		Water Resources		Semi-Quantitative
Water		Flood Defence	<del></del>	Quantitative
Waste	1	Fisheries		Criteria
<u> </u>		Rec & Nav		Assessment
Purpose		Conservation	<del></del>	Probabilistic/Determ
Regulation		PIR		Stochastic
Operational		Radioactivity	<del></del>	Risk Assessment
Planning	_	Waste Policy		
Prioritising		Land Quality		Risk Management
4. Further Assessment	<del></del>			
<b>6</b>		_	-3	
Coverage		Туре		System Base
Site Specific	_	Procedural		Paper
Catchment	_	Mathematical		PC - DOS
Regional	$\dashv$	Statistical		PC - Windows
Vational	_	Chemical		UNIX/Mainframe
4.0		Physical		
Timescale	~_	Biological	<del></del>	In-House
Resolution		Radioactivity		Third Party
5. Links to Standards, Tar	gets and Data	abases (Cross-reference)		
		<u>A</u>		*
Standards		Da	tabases	
5. Comments			<u> </u>	:
				<del></del>
		4		

. Title		Form Ref PIROOS
. Model Purpose	i	Acronym SURSER
isers:		
requency	Development	License
Routine -	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
		1100
. General Assessment	Under development	
dedia	Function	Risk Assessment
vir		Qualitative
	Water Quality	
and	Water Resources	Semi-Quantitative
Vater	Flood Defence	Quantitative
Vaste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
lanning	Waste Policy	Risk Management
rioritising	Land Quality	· <u> </u>
. Further Assessment		
overage	Туре	System Base
ite Specific		Oct or
atchment	Procedural  Mathematical	Paper PC - DOS
	•	
egional lational	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe
Server la Company	Physical	
imescale.	Biological	In-House
esolution	Radioactivity	Third Party
. Links to Standards, Targets	and Databases (Cross-reference)	
tandards	Databases	
		200
Comments		
	4.	
4.		

; E

1. Title		Form Ref PIR006
2. Model Purpose		Acronym DISTAR
Users:		
Frequency	Development	License
Routine .	None	Licensed
Periodic	Arguing revision	if so, number
Occasionally	Being revised	Free
3. General Assessment	Under development	
5. General Assessment		
Media	Function	Risk Assessment
Air -	7 Way 0 - Car	
Land	Water Quality	Qualitative
· · · · -	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	*Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
4. Further Assessment	*	-
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational		
· · · · · · · · · · · · · · · · · · ·	Chemical	UNIX/Mainframe
Timesens!-	Physical	
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Targe	ts and Databases (Cross-reference)	
Standards	Database	es
	Databasi	140
i. Comments	<del></del>	

. Title	Operator and Pollution	Risk Appraisal	Form Ref PIR007	
2. Model l	Purpose		Acronym	
			e an indication of probability of an occurrence	
in undesira risks.	ible event and the conse	quences of the event. These factors a	e combined to give an indication of compara	iive
	D. II. / A.			—
Users:	Pollution Officers			
Frequency		Development	License	
Routine		None	Licensed	$\neg$
Periodic		Arguing revision	If so, number	$\dashv$
Occasional	ly	Being revised	Free 7	$\Box$
3. Genera	l Assessment	Under development		
Media		Function	Risk Assessment	
Air		Water Quality	Qualitative	
Land	<del>                                     </del>	Water Resources	Semi-Quantitative ✓	
Water	<del></del>	Flood Defence	Quantitative \(	$\dashv$
Waste	<b>├</b> ——─	Fisheries	Criteria	$\dashv$
.,		Rec & Nav	Assessment	
Purpose		Conservation	Probabilistic/Determ	$\dashv$
Regulation		PIR	Stochastic	$\dashv$
Operational	L	Radioactivity	Risk Assessment	$\dashv$
Planning	2.1 %	Waste Policy	Risk Management	-
Prioritising	7	Land Quality		
l. Further	Assessment	4.		
Coverage		Туре	System Base	
ite Specifi		Procedural .	Paper 🗸	100
Catchment	* <del>  </del>	Mathematical	PC - DOS	$\dashv$
Regional	<del>                                     </del>	Statistical	PC - Windows	$\dashv$
vational		Chemical	UNIX/Mainframe	$\dashv$
		Physical		
Timescale		Biological	In-House 🗸	$\neg$
Resolution	÷ -	Radioactivity	Third Party	$\exists$
. Links to	Standards, Targets ar	d Databases (Cross-reference)		
Dandarda F	Target. Target on functi	on use operational Death	2000	—
-	rarget. Target on runcti performance measure (C	· • • • • • • • • • • • • • • • • • • •	4300	}
	performance measure (C tool.	ititi). Of tox as a		
. Comme				
DDA	-in-1 -6 L	and the Osemia Burgar	Apprical and the Politician Harand A	eal ]
	sists of two main comp i stored in IPCS,	onenis - the Operator Performance	Appraisal and the Pollution Hazard Appra	ışaı
	SOUTH IF C3.		11.14.11	الس

.

.

S

۲

ı

÷

. Title Uniform System for	the Evaluation of Substances	Form Ref PIRO08
2., Model Purpose		Acronym USES
	for rapid quantitative assessments of the ge o set priorities for new and existing substan	
applied to risk assessment and t	o set priorities for new and existing substan	
Users:		7
L		
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
· L	Under development	<del></del>
3. General Assessment		
Vledia	Function	Risk Assessment
Air 🔽	Water Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose .	Conservation	Probabilistic/Determ 🗸
Regulation 4	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	Nisk ivialagement
Thorntising 4	Land Quarty	
4. Further Assessment		
Coverage	Type	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
National /	Chemical -	UNIX/Mainframe
	Physical	
Timescale	Biological -	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Target	ts and Databases (Cross-reference)	
Standards	Databa	ses
6. Comments		
		(9)
		941

ł

ı

ı

Title Validity Analysis of Dis	sposal Alternatives	Form Ret RASOOI
ladel Purpose		Acronym VANDAL
	the Agency's quantitative risk assessm om radionuclide releases from radioac	ent capability, providing estimates of risk to m tive waste disposal facilities.
rs: Risk Section, NCRAOA		<b>—</b>
3. Mar Section, Includor	<u> </u>	
quency	Development	License
tine	None .	Licensed
odic	Arguing revision	If so, number
asionally	Being revised	Free -
General Assessment	Under development	
lia	· Function	Risk Assessment
	Water Quality	Qualitative
1	Water Resources	Semi-Quantitative
er 🗸	Flood Defence	Quantitative
te 🗸	Fisheries	Criteria
	Rec & Nav	Assessment
pose	Conservation	Probabilistic/Determ /
ulation	PIR	Stochastic
rational	Radioactivity	Risk Assessment
ning ritising	Waste Policy	Risk Management
	Land Quality	
urther Assessment	.4	- J
erage	Туре	System Base
Specific /	Procedural	Paper
hment	Mathematical 🗸	PC - DOS
onal	Statistical	PC - Windows
onal	Chemical /	UNIX/Mainframe
	Physical /	
scale	Biological	In-House
lution	Radioactivity	Third Party
inks to Standards, Targets at	nd Databases (Cross-reference)	
dards Risk target of 1x10 <sup>-6</sup>	set in regulatory Databas	ses
omments		
This methodology is cur	rently under development	
, sa	,,	

ı

. Title WOLFNET		Form Ref RAS002
. Model Purpose	4	Acronym WOLFNET
VOLFNET is the flow sub-mode /ANDAL	t in VANDAL and provides groundwater tlo	w predictions for the transport sub-model in
Users: Risk Section, NCRAC	OA.	
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
·!	Under development	
3. General Assessment	· ·	4
Media	Function	Risk Assessment
Air -	Water Quality	Qualitative
Land	Water Quality Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
17 41516	Rec & Nav	Assessment
Purpage	Conservation	Probabilistic/Determ
Purpose	PIR	Stochastic
Regulation   Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	KISK (Vialiagement
Triomsing	Land Quarty	
4. Further Assessment		
Coverage	Туре	System Base
(4)		
Site Specific	Procedural	Paper
Catchment	Mathematical /	PC - DOS
Regional	Statistical	PC - Windows
National	Chemical	UNIX/Mainframe
	Physical	
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Targets	and Databases (Cross-reference)	
Standards As VANDAL	Databases	
	(2)	7.0
6. Comments		
Sub-model of VANDAL		
_ <del></del>		

ı

ı

. Title DECOS-MG		Form Ref RAS003	
Model Purpose		Acronym DECOS-M	G
ynamic modelling of radionuclide r	nigration within the surface environm	ent.	
sers: NCRAOS - Risk Section		7 *	
requency	Development	License	
outine	None	Licensed	
eriodic	Arguing revision	If so, number	
ceasionally	Being revised	Free	1
General Assessment	Under development		
4		(40)	
ledia	Function	Risk Assessment	
ir 📗	Water Quality	Qualitative	
and 7	Water Resources	Semi-Quantitative	
ater	Flood Defence	Quantitative	1
aste	Fisheries	Criteria	7
	Rec & Nav	Assessment	1
urpose	Conservation	Probabilistic/Determ	1
egulation	PIR	Stochastic	1
perational	Radioactivity 🗸	Risk Assessment	✓
anning	Waste Policy	Risk Management	
rioritising	Land Quality		4
Further Assessment			
overage	Туре	System Base	
te Specific	Procedural	Paper [	•
itchment	Mathematical	PC - DOS	<del></del> -
gional	Statistical	PC - Windows	—
ational	Chemical	UNIX/Mainframe	
	' Physical	9 - 3	
mescale	Biological	In-House	1
solution	Radioactivity	Third Party	
Links to Standards, Targets and	Databases (Cross-reference)		
andards As VANDAL	Databas	es SECOS - dose conversion factors	
Comments	Ú.		
	- 18 18 18 18 18 18 18 18 18 18 18 18 18		

1. Title TIME4		Form Ref RAS004
2. Model Purpose		Acronym TIME4
This methodology is being develop a establish priorities across the rer	oed to enable risk assessments for other te nit of the Environment Agency.	chniques to be normalised in order
Users: NCRAOA - Risk Section	n	]
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
	Under development	1
3. General Assessment	<del></del>	-
Media ·	Function	Risk Assessment
Air -	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Water	Flood Defence	Ouantitative /
Waste	Fisheries	Criteria
w asic	Rec & Nav	4
Purpose*	Conservation	Assessment Probabilistic/Determ
Regulation	PIR	
Operational		
Planning		
Prioritising	Waste Policy Land Quality	Risk Management
	Cand Quanty	1
I. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical	PC · DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
الا	Physical	1
Timescale .	Biological	(n-House
Resolution	Radioactivity	Third Party
i.: Links to Standards, Targets a	nd Databases (Cross-reference)	
· · · · · · · · · · · · · · · · · · ·		
Standards As VANDAL	Databases	
i. Comments	4.0	4.
•		ł

CHEMTARD is a coupled chemical transport code used to determine the migration of radionuclides through the special possible.  CHEMTARD is a coupled chemical transport code used to determine the migration of radionuclides through the special possible.  Consider the company of	I. Title Chemical Transport	Adsorption Redox and Delay Model	Form Ref RAS005
CHEMTARD is a coupled chemical transport code used to determine the migration of radionuclides through the geosphere.    Chemical	L		
Development   License	2. Model Purpose		Acronym CHEMTARD
Users:   NCRAOA - Risk Section	CHEMTARD is a coupled chem	ical transport code used to determine the mi	gration of radionuclides through the
Routine None Arguing revision Being revised Under development If so, number Free Z.  3. General Assessment  Media Function Risk Assessment  Media Function Risk Assessment  Air Water Quality Water Resources Semi-Quantitative Quantitative Flood Defence Fisheries Rec & Nav Assessment Z.  Purpose Conservation PIR Z.  Poperational Radioactivity Risk Assessment Risk Assessment Risk Assessment Risk Assessment Z.  Planning Waste Policy Risk Assessment Risk Management Risk Managemen	geosphere.	·	
Frequency  Development  License  Routine Periodic  Arguing revision Being revised Under development  Arguing revised Under development  Free  Water Licensed	MCDAOA . Diek Sec		7
Routine Periodic	users.	tion	
Periodic    Cocasionally	Frequency	Development	License
Periodic	Routine	7 None	1.icensed
Occasionally  Being revised Under development  J. General Assessment  Media  Function  Risk Assessment  Air  Land  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Purpose Regulation Operational PIR Operational Radioactivity Risk Assessment  Planning Prioritising  A. Further Assessment  Coverage  Type  Site Specific Datchment Mathematical Regional National Physical Physical Physical Physical Radioactivity Risk Assessment Pro- DOS Paper P	Periodic /	J	<b>—</b>
Under development			
Air Land Water Quality Water Resources Water Water Flood Defence Waste Fisheries Rec & Nav Conservation PIR Water Pobabilistic/Determ Probabilistic/Determ Probabilistic/Determ Planning Waste Policy Planning Waste Policy Prioritising Type System Base Site Specific Determined Statistical Vergional Statistical Value Statistical Value Statistical Vergional Statistical Vergional Statistical Vergional Vergional Statistical Vergional Vergional Prosedural Prosedural Paper Catchment Mathematical Statistical Vergional Ve			- 1166
Air Land Water Resources Water Water Water Waste	3. General Assessment	Onder development	J - **
Water Resources   Semi-Quantitative   Water Resources   Regulation   Piper   Assessment   Propose   Regulation   Piper   Propose   Regulation   Piper   Piper   Risk Assessment   Radioactivity   Risk Assessment   Risk Management   Piper Risk Management   Propose   Risk Management   Propose   Risk Management   Propose   Pr	Media	Function	Risk Assessment
Land Water Resources Water Flood Defence Fisheries Rec & Nav Conservation Purpose Regulation PIR Planning Planning Prioritising  Fisheries Rec & Nav Conservation Pir Radioactivity Risk Assessment Planning Prioritising  Fisheries Rec & Nav Assessment Probabilistic/Determ Stochastic Radioactivity Risk Assessment Risk Management Prioritising  Frioritising  Frioritisi	Air	Water Quality	7 Qualitative
Water	Land	- L	
Waste Fisheries Rec & Nav Assessment Probabilistic/Determ Purpose Conservation PIR Stochastic Peterm Poperational Radioactivity Risk Assessment Risk Management Risk Management Proritising Waste Policy Risk Assessment Risk Management Risk Management Risk Management Risk Management Proritising Received Risk Management	Water		
Rec & Nav Conservation Purpose Regulation PIR Planning Planning Prioritising Radioactivity Risk Assessment Probabilistic/Determ Radioactivity Risk Assessment Risk Management			
Purpose Regulation PIR Radioactivity Risk Assessment Planning Prioritising Radioactivity Risk Management Prioritising Risk Management Risk Man	w asie		
Regulation   PIR	•		
Planning Waste Policy Risk Management  A. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PG - DOS Regional Statistical PG - Windows Valional Physical Physical Physical Physical Physical Radioactivity In-House Resolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally			
Planning Waste Policy Land Quality  A. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PC - DOS PC - DOS PC - Windows			
Prioritising Land Quality  4. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows Valional Chemical VINIX/Mainframe VINIX/Mainframe Physical Physical In-House Resolution Radioactivity Third Party  Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	· · · · · · · · · · · · · · · · · · ·	4 · L	
Prioritising Land Quality  4. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows Valional Chemical VINIX/Mainframe Physical UNIX/Mainframe Physical In-House Resolution Radioactivity Third Party  5. Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	Planning	d	Risk Management
Site Specific	Prioritising	Land Quality	
Site Specific Catchment Catchment Regional National Statistical Chemical Physical Ph	4. Further Assessment	**	
Regional Statistical PC - DOS Regional Statistical PC - Windows Vational Chemical VINIX/Mainframe V Physical In-House Resolution Radioactivity V Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	Coverage	Туре	System Base
Regional Statistical PC - DOS Regional Statistical PC - Windows Vational Chemical VINIX/Mainframe V Physical In-House Resolution Radioactivity V Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	··· o·		_
Regional Statistical PC - Windows UNIX/Mainframe Physical In-House Resolution Radioactivity In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally			
National  Chemical			
Physical Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally			d
Resolution  Biological Radioactivity  Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None  Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	lational	<u> '</u>	UNIX/Mainframe .
Resolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally			
Links to Standards, Targets and Databases (Cross-reference)  Standards None Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally		Biological	
Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	Resolution	Radioactivity	Third Party
Databases CHEMVAL - thermodynamic database  CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	Links to Standards, Targets	and Databases (Cross-reference)	14
HEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally			
CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	tandards None	Databases	CHEMVAL - thermodynamic database
CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally	Comments		
CHEMTARD has been used to model at both laboratory and field scale transport of radionuclides and, more generally eavy metals in a contaminated aquifer.	. Comments		
cavy metals in a contaminated aquifer.	HEMTARD has been used to I	model at both laboratory and field scale tra-	nsport of radionuclides and, more generally
- /	eavy metals in a contaminated a	quifer.	maport of received and and generally
	ontact Roger Yearsley	Location: London	Tel: 7 10 6833
ontact Roger Yearsley Location: London Tel: 7 10 6833		;	1 1

. Title pH Redox Equi	librium Equations	Form Ref RAS006
. Model Purpose		Acronym PHREEQE
	program is designed to modelling geochemica H, redox potential, and mass transfer as a func	
sers: NCRAOA - Ri	sk Section	
<u></u>		- 2, -
requency	Development	License
outine	None /	Licensed
eriodic	Arguing revision	If so, number
ccasionally	Being revised Under development	Free
. General Assessment		
ledia	Function	Risk Assessment
ir —	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
/ater	Flood Defence	Quantitative
√aste —	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
Pperational	Radioactivity 🗸	
lanning	Waste Policy	Risk Management
rioritising	Land Quality	J
. Further Assessment		
Coverage	Туре	System Base
ite Specific	Procedural	Paper
Catchment	Mathematical	PC - DOS
egional	Statistical	PC - Windows
lational	Chemical	UNIX/Mainframe
imescale	Physical Biological	In-House
Resolution	Radioactivity	Third Party
. Links to Standards, T	argets and Databases (Cross-reference)	
tandards	Datal	bases
. Comments	(4)	

.

Part IIA EPA 1990, Har Manuals.	dbook, Guidance Notes and Supporting	Form Ref LQ001
Model Purpose		Acronym
O describe the process to be adopt	ed by the Agency when exercising regulati	nov control under the contaminated land
		ook also provides links to associated Agency
ocumentation (le guidance notes a		,
sers: Agency staff and made:	available externally (eg local authorities)	
<u> </u>		
requency	Development	License
outine	None	Licensed
eriodic	Arguing revision	If so, number
ccasionally	Being revised	Free
,	Under development	<u> </u>
General Assessment		
ledia	Function	Risk Assessment
ir	Water Quality	Qualitative
and -	Water Resources	Semi-Quantitative
ater	Flood Defence	Ouantitative
aste	Fisheries	Criteria
	Rec & Nav	Assessment ✓
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
rioritising	Land Quality	
Further Assessment		
. C. ther passassinent		
overage	Туре	System Base
te Specific	Procedural 🗸	Paper 🗸
atchment	Mathematical	PC - DOS
egional	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe
	Physical	
mescale	Biological	In-House 🗸
esolution	Radioactivity	Third Party
Links to Standards, Targets an	d Databases (Cross-reference)	
andards	Databases	Links to CLEA CONSIM/LANSIM & other
	1	model procedure tools hand legislation
-		
Comments		<u> </u>
o agency staff but externals may i	ncur costs.	
·		

I

. Title M	odel Procedures for th	e Management of Contaminated Land.	Form Ref L Q002
. Model Pu	rpose		Acronym
o provide a		and procedural guidance for the identification	ation, treatment and monitoring of
	idespread use		]
i requency		Development	_] License
Coutine		None	Licensed
eriodic	<del>                                   </del>		If so, number
		Arguing revision	
occasionally	L	Being revised	Free
. General A	\ssessment	Under development	_
·ledia		Function	Risk Assessment
	55		
ir		Water Quality	Qualitative
and	<del></del>	Water Resources	Semi-Quantitative
Vater	<del></del>	Flood Defence .	Quantitative
Vaste	<del>  ` -</del>	Fisheries	Criteria
¥ 43tC	L	Rec & Nav	Assessment
			Probabilistic/Determ
urpose		Conservation	
legulation	\	PIR	Stochastic
perational	<b>✓</b>	Radioactivity	Risk Assessment
lanning		Waste Policy	Risk Management
rioritising	<b>/</b>	Land Quality	
. Further A	Assessment	•	÷
Coverage		Туре	System Base
in Carrie	<del></del>	C. Penandumi	7 Paner
ite Specific	<b> </b> '	Procedural	Paper 7
atchment	<b></b>	Mathematical	PC - DOS
legional		Statistical	PC - Windows
lational		Chemical	UNIX/Mainframe
		Physical	
imescale	NIA	Biological	In-House 🗸
<b>Lesolution</b>		Radioactivity	Third Party
. Links to S	Standards, Targets as	nd Databases (Cross-reference)	
_			
tandards O	ther EQOs and QA Sta	andards Database	s Links to CLEA, Consim, The Integrated
Ĺ			Methodology, etc
. Commen	ts		4.2
ompleted be	ut with DETR for publ	lication (date not known). No licence req	nured but must pay cost of buying.

. Title Contaminated Land I	Exposure Assessment		Form Ref LQ003	
. Model Purpose		7.	Acronym CLEA	
stimating likely human exposure any unacceptable long term	re for contaminants in soils for the deve isks to human health.	lopment of g	uideline values to indic	cate whether there
isers: None	-	<del></del>	· · · · · · · · · · · · · · · · · · ·	<del></del>
	*			
requency	Development	- 9	License	. *
Coutine	None		Licensed	N/A
eriodic	Arguing revision		It'so, number	
Occasionally	Being revised		Free	
. General Assessment	Under development			
ledia	Function		Risk Assessment	
			111311.1.10313311.0111	
ir	Water Quality		Qualitative	19_
and /	Water Resources		Semi-Quantitative	
Vater	Flood Defence		Quantitative	1
aste	Fisheries		Criteria	1
10.2	Rec & Nav		Assessment	- 4
urpose	Conservation		Probabilistic/Deter	
egulation   perational	PIR Radioactivity		Stochastic	1
lanning	Waste Policy		Risk Assessment Risk Management	1
rioritising	Land Quality		TOOK (TAMING VIII ON	
Further Assessment		4		44
overage	Туре		System Base	41
ite Specific	Procedural	_	Paper	<del></del>
atchment	Mathematical	_	PC - DOS	
egional	Statistical 🗸		PC - Windows	
ational	Chemical 🗸	46	UNIX/Mainframe	
A 17 %	Physical			
imescale	Biological 🗸		In-House	
esolution	Radioactivity		Third Party	1
Links to Standards, Targets	and Databases (Cross-reference)			
andards Used to derive site-s national generic asses	• I	ases Links to	SVI model toxicologi	cal data
Comments				
			<del></del>	,
	loped with UK parameters and application for AERIS Canadian soil models). It incorpora			odel has

1. Title Short - Term Risk:		Form Ref LQ004
2. Model Purpose		Acronym
Development of model to assi	ess short-term risks to human health.	÷.
Users:		7
Frequency	Development	License
Routine	None	Licensed N/A
Periodic /	Arguing revision	If so, number
Occasionally	Being revised	Free
<del></del>	Under development	437
3. General Assessment	<del></del> -	-
Media	Function	Risk Assessment
Air T	Water Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
<u> </u>	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural /	Paper 7
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical /	UNIX/Mainframe
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Targ	ets and Databases (Cross-reference)	
Standards Model procedures	Part II A Regulation   Database	es (Interface with CLEA.
Handbook	Database Database	
i. Comments	4	

I. Title Buildings Risk		Form RefLQ005
2. Model Purpose		Acronym
Guidance on assessing and man	aging risks from contamination to building	ng materials including specific regulatory
Users: Widespread use incl	dia contact	
widespread use mer	uding regulators.	
Frequency	Development	License
Routine	None	Eicensed N/A
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
B. General Assessment	Under development	
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	7 PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
. Further Assessment		4
Coverage	Туре	System Base
· · · · · · · · · · · · · · · · · · ·	<del></del>	
Site Specific	Procedural /	Paper /
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
Timescale	Physical /	In-House
Resolution	Biological Radioactivity	Third Party
	-	
. Links to Standards, Target	s and Databases (Cross-reference)	
tandards Part IIA Handbook N	Model Procedures Databa	ses
. Comments		
	) · (	

1. Title Ecosystem Risks from C	Contaminated Land		Form Ref LQ006
2. Model Purpose			Acronym ECORCL
To assess the risks to ecosystems fr	om contaminated sites		
Users: Land Quality Staff. Exte	mal Users		-
Frequency	Development		License
Routine	None		Licensed
Periodic	Arguing revision	_	If so, number
Occasionally	Being revised	$\dashv$	Free
	Under development		L
3. General Assessment			
Media	Function	1	Risk Assessment
Air ·	Water Quality	$\neg$	Qualitative
Land	Water Resources		Semi-Quantitative
Water	Flood Defence		Quantitative
Waste	Fisheries		Criteria
	Rec & Nav		Assessment
Purpose	Conservation	_	Probabilistic/Determ
Regulation	PIR		Stochastic
Operational	Radioactivity	<del> </del>	Risk Assessment
Planning	Waste Policy		Risk Management
Prioritising	Land Quality .		rusk istanagoment
4. Further Assessment			
Coverage	Туре		System Base
Site Specific	Procedural 7	<del></del> -	Paper
Catchment	Mathematical	-	PC - DOS
Regional	Statistical		PC - Windows
Vational	Chemical		UNIX/Mainframe
	Physical		
Timescale	Biological ✓		In-House
Resolution	Radioactivity	_	Third Party
5. Links to Standards, Targets ar	d Databases (Cross-reference)		
Standards Various reference 'levels	'available Databa	ses Various	ecotox databases
6. Comments			
			<del></del>

...

.

Title ConSim		Form Ref LQ007
Model Purpose		Acronym ConSim
the quality of controlled water tput of predicted impact on wa		
wQ/LQ operational s	taff. Consultants	
equency	Development	License
riodic /	None Arguing revision Being revised Under development	Licensed If so, number Free
General Assessment		*
edia	Function	Risk Assessment
nd aler	Water Quality Water Resources Flood Defence Fisheries	Qualitative Semi-Quantitative Quantitative Criteria
rpose gulation erational	Rec & Nav Conservation PIR Radioactivity	Assessment Probabilistic/Determ Stochastic Risk Assessment
nning oritising	Waste Policy Land Quality	Risk Management
Further Assessment		,
verage	Туре	System Base
e Specific chement gional tional	Procedural Mathematical Statistical Chemical Physical	Paper PC - DOS PC - Windows UNIX/Mainframe
nescale solution	Physical Biological Radioactivity	In-House Third Party
Links to Standards, Targets	and Databases (Cross-reference)	
ndards WQ standards	Databases	
Comments -	10.	
ency owned tool.		

L

1	he derivation of remedial targets for soil an tect water resources.	Form Ref LQ008
2. Modet Purpose	_	Acronym
	requirements for contaminated soils and grougy compliments the ConSim software tool.	indwater to prevent pollution of the aquatic
	il, Operational, Planning staff and ection officers, Consultants,	
Frequency	Development	License
Routine Periodic Occasionally	None Arguing revision Being revised Under development	Licensed If so, number Free
3. General Assessment	onder consideration	
Media	Function	Risk Assessment
Air Land  Water  Waste	Water Quality Water Resources Flood Defence Fisheries Rec & Nav	Qualitative Semi-Quantitative Quantitative Criteria Assessment
Purpose Regulation Operational Planning Prioritising	Conservation PIR Radioactivity Waste Policy Land Quality	Deterministic Stochastic Risk Assessment Risk Management
4. Further Assessment		
Coverage	Туре	System Base
Site Specific Catchment Regional National	Procedural Mathematical Statistical Chemical Physical	Paper PC - DOS PC - Windows UN!X/Mainframe
Firmescale Resolution	Biological Radioactivity	In-House ✓ Third Party
-3-	ets and Databases (Cross-reference)	
Standards WOS	<u> </u>	Compliments The ConSim Software tool.
		Complinents The Consult Software tool.
. Comments		
		16

Title	Validation of Analy Analysis of Soil	tical Tech	niques for Laboratory		Form RefLQ009	
Model	Purpose				Acronym	
provide	e Quality Assurance	in Labora	tory Analysis of Soil.			-
sers:					<del></del>	
24.2.						
requenc	у		Development		License	
outine		٦	None		Licensed	N/A
nodic		7	Arguing revision		If so, number	
ccasiona	lly -	1	Being revised		Free	
	· -	<b>_</b>	Under development		1	
Genera	al Assessment					i
ledia			Function		Risk Assessment	
ir		٦	Water Overline		Ouglisasing 1	
and and	<del>  -,-</del>	4	Water Quality	<b>——</b>	Qualitative	
		4	Water Resources	<b> </b>	Semi-Quantitative	
ater	00	_	Flood Detence		Quantitative	1
aste	0.0	J	Fisheries		Criteria	1
			Rec & Nav		Assessment	1
urpose		_	Conservation		Probabilistic/Determ	✓
gulation	, <del>7</del>	7	PIR		Stochastic	
perationa	al	7	Radioactivity		Risk Assessment	<b>✓</b>
anning		1	Waste Policy		Risk Management	
ioritising	3	₫	Land Quality			
Furthe	r Assessment					
overage			Type		System Base	
te Specif	fic T	7	Procedural		Paper	1
ichmeni		-1	Mathematical		PC - DOS	
gional		-	Statistical	<del></del>	PC - Windows	<del></del>
ational	<del></del>	-	Chemical	<del>                                     </del>	UNIX/Mainframe	
				<del></del>	OTAL STATEMENT OF THE	
mescale	IN//A	-	Physical	<del></del>	r_ rr [	
		1	Biological	<b>——</b>	In-House	
solution	N/A	_	Radioactivity		Third Party	
Links t	o Standards, Targe	ts and Da	tabases (Cross-refere	nce)		ě
andarde l	Support Guideline	/aluer		Databases -		7
	Model Procedures &		Regulation	Daraneses	4	1
		rant ItA	r.cguiauon			
1	Handbook					
Comme	ents					
<b>_</b>	*					
oss relat	es to work done by	OTI on va	lid analytical measurem	nents.		

Title River Quality Pla	nning	Form Ref WQ001
Model Purpose		Acronym RQP
collection of stochastic pro	ogrammes for predicting the impact of single d	ischarges includes RQI, and CONCLASS.
sers: All regions		]
equency	Development	License
outine /	None .:	Licensed
riodic	Arguing revision	If so, number
casionally	Being revised  Under development	Free
General Assessment		
edia	Function	Risk Assessment
,	Water Quality	Qualitative
	Water Quality	Semi-Quantitative
ın <b>d</b>	Water Resources	
ater /	Flood Defence	Quantitative
aste	Fisheries	Criteria
	Rec & Nav	Assessment
ırpose	Conservation	Deterministic
gulation	PiR	Stochastic /
perational /	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
ioritising	Land Quality	
Further Assessment		
overage	Туре	System Base
te Specific	Procedural	Paper
tchment	Mathematical /	PC - DOS
gional	Statistical /	PC - Windows
ational	Chemical	UNIX/Mainframe
-	Physical	<b>4</b>
mescale	Biological	In-House
esolution	Radioactivity	Third Party
Solution	Radioactivity	I third tarty
Links to Standards, Tar	gets and Databases (Cross-reference)	
andards EQS' River Ecos General Quality A	ystem (RE) Database sssessment (GQA)	s WQ Archives
Comments	,	

I. Title Simula	ition of Catchmen	S	Form Ref WQ002
2. Model Purpos	:c .		Acronym SIMCAT
The prime purpos	e is to calculate th	effect of discharges and other types	of pollution and abstractions on the statistical
distributions of riv	ver water quality the	proughout a catchment. It is primarily	used as a consent setting tool.
Users: Anglia	n, Midlands, Than	nes, Southern, North West.	
Frequency		Development	License
Routine		None	Licensed
Periodic		Arguing revision .	If so, number
Occasionally		Being revised  Under development	Free
3. General Asses	sment		(A)
Vledia		Function	Risk Assessment
Air	<del></del>	Water Quality	Qualitative :
Land		Water Resources	Semi-Quantitative
Water	<del>   </del>	Flood Defence	Quantitative
Waste	<del></del>	Fisheries	Criteria
-	i	Rec & Nav	Assessment
Purpose		Conservation	Deterministic
Regulation		PIR	Stochastic
Operational		Radioactivity	Risk Assessment
Planning	7	Waste Policy	Risk Management
Prioritising		Land Quality	
l. Further Assess	sment		
Coverage		Туре	System Base
Site Specific		Procedural	Paper
Catchment		Mathematical 🗸	PC - DOS
Regional		Statistical /	PC - Windows
Vational		Chemical /	UNIX/Mainframe
		Physical	7
Timescale	Max 5	Biological	In-House
Resolution	100m	Radioactivity	Third Party
. Links to Stand	ards, Targets and	Databases (Cross-reference)	(3)
	iles) and site speci		ses SIMCAT relies on river specific data files for flow and quality data and also uses data from WQ archive.
. Comments	:		
114647	<del></del>		VCAT
			MCAT calculates automatically the statistica onsents required to meet River Quality

Title Temporal Overall Model to	Catchments	Form Ref WQ003
Model Purpose		Acronym TOMCAT
TOMCAT may be used as a	tool for consent setting in order to achieve	e river quality standards and may also be
calculating consent standard	odel, for example, phosphate to assist targ for effluent discharges in catchments whe	etting investment. It is an essential tool for
	is important to predict dissolved oxygen I	
ers: North East, Thames, Souther	m, North West	
	0.50	
equency	Development	License
outine /	None	Linnard
riodic	Arguing revision	Licensed If so, number
casionally	Being revised	Free
	Under development	L
General Assessment		
Contra as anguagament		
edia	Function	Risk Assessment
, ,	Water Quality	Qualitative
nd	Water Resources	Semi-Quantitative
ter	Flood Defence	Quantitative
ste	Fisheries	Criteria
rpose	Rec & Nav Conservation	Assessment / Probabilistic /
gulation	PIR	Stochastic
erational	Radioactivity	Risk Assessment
nning 🗸	Waste Policy	Risk Management
ritising	Land Quality	*
urther Assessment	*	4
verage '	Туре	System Base
e Specific	Procedural	Paper
tchment	Mathematical 🗸	PC - DOS
gional	Statistical	PC - Windows
tional	Chemical	UNIX/Mainframe
	Physical Siological	>•
mescale Max 1 yr		In-House
olution 500m reaches	Radioactivity	Third Party
	<u> </u>	
Links to Standards, Targets and D	atabases (Cross-reference)	•
ndards		ARIGOLD has been written to convert raw data in
		eributions for TOMCAT. TOMCAT also has a met end called TOMFRONT
		, m
Comments		
TOMCAT is undergoing fu	rther developments to deal with the effects	s of algae in water resources. Currently
there are three different vers		
L	·	
ct Richard Freestone	Location: Leeds	Tel: 728 4671
Julianne Struve	Reading	725 5341
		•

-

=

Title Quality Simulation A	long Rivers	Form Ref WQ004
Model Purpose		Acronym QUASAR
100		
	to assess the effect of developments and chemore stringent consents etc) on river quali	ty. QUASAR may be used in both a dynamic
nd a planning capacity.	3	
sers: South West		
requency	Development	License
outine 7	None	Licensed
riodic	Arguing revision	If so, number 8
ccasionally	Being revised	Free
·	Under development	
General Assessment		
ledia	Function	Risk Assessment
icui2	runction	мізк Азэсээшей!
ir	Water Quality	Qualitative
and	Water Resources ✓	Semi-Quantitative
ater	Flood Defence	Quantitative
aste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR 🗸	Stochastic 🗸
perational	Radioactivity	Risk Assessment
anning /	Waste Policy	Risk Management
rioritising	Land Quality	
Further Assessment	1.1	5
overage	Туре	System Base
te Specific	1 Procedural	Paper
atchment J	Mathematical	PC - DOS
egional	Statistical ✓	PC - Windows
ational	Chemical	UNIX/Mainframe
<u> </u>	Physical	
•	Biological	In-House
imescale days	1	Third Page
mescale days solution snow reaches	Radioactivity	Third Party
Links to Standards, Targets	and Databases (Cross-reference)	144
		Torket no. 1
andards	Database	es QUASAR relies on raw data from both the Water Quality and Quantity archieves.
Comments	<u> </u>	•
		mentally revised as part of the LOIS Project. The new
sion will be called QUESTOR which	n will be more widely available.	

. Title Estuarine (Contamin	ant) Shell	Form Ret WQ005
. Model Purpose .	. *	AcronymECoS
CoS is a shell or framework for	or modelling contaminants such as dangero	ous substances in estuaries.
Jsers: South West, West, S	outhern	7
<u></u>		
Frequency	Development	License
Routine	None	Ligensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised  Under development	Free
Consent Assess		
3. General Assessment		
Vledia	Function	Risk Assessment
Air -	Water Quality ✓	Qualitative :
and	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Deterministic
Regulation /	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	7 Procedural	Paper
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
	Physical /	
umestep is	7	-         -
l'imescale days	Biological	In-House
Resolution tkm reaches	Radioactivity	Third Party
5. Links to Standards, Target	s and Databases (Cross-reference)	
Standards EQSs & Informal Re	gional Targets Databas	es Raw data from Water Quality Archive.
7.0		
5. Comments		
	st to date, further development is being undertaken t	o include the sanitory suite of determinants. The
oftware has been used by Welsh Regio	on to design sampling programmes.	17*

.

. Title MIKE - 1 Dimension	onal and I Layered	Form Ref WQ006
. Model Purpose		Acronym MIKE11
	tware package for the simulation of flows, v	vater quality and sediment transport in
stuaries, rivers, irrigation sy	stems, canais and other water bodies.	
Jsers: Regions		
requency	Development	License
outine	None	Licensed /
eriodic /	Arguing revision . 7	If so, number 16
Occasionally	Being revised	Free
·	\ Under development	
. General Assessment		
·ledia	Function	Risk Assessment
ir	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Vater	Flood Defence	Quantitative
Vaste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Deterministic
egulation 🗸	7 PIR	Stochastic
perational	Radioactivity	Risk Assessment
lanning /	Waste Policy	Risk Management
rioritising	Land Quality	NOSK IVIAITAGEMENT
. Further Assessment		
overage	Туре	System Base
ite Specific	7 Procedural	Paper
atchment	Mathematical 🗸	PC - DOS
egional	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe /
	Physical	
imescale	Biological	In-House
esolution	Radioactivity	Third Party
. Links to Standards, Targe	ts and Databases (Cross-reference)	
	<del></del>	
tandards	Databas	es
Comments	<del></del>	
IKELI is a madular array	think includes a CIS investion. Dead	y DHI and supported in the UK by WS Atkins
is used in the UPM methodol	logy for the most complex situations. Futur	re developments likely but may not be via WS
	y water quality and occasionally by flood of	

ı

Environment Agency Register of Risk Assessment	Tools: Part 1 - Models and Pro	cedures
1. Title Quality of Estuaries Sim	ulations	Form Ref WQ007
2. Model Purpose		Acronym QUESTS
QUESTS models estuarine quality determined to improve water quality	particularly with respect of discharges	and how consent conditions may be
Users: North East, Anglian, Mi		7
183		
Frequency	Development	License
Routine Periodic Occasionally	None Arguing revision Being revised Under development	Licensed  If so, number 3 or 4  Free
3. General Assessment		<del>_</del>
Media	Function	Risk Assessment
Air Land Water Waste	Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation	Qualitative Semi-Quantitative Quantitative Criteria Assessment Deterministic
Regulation Operational Planning Prioritising	PIR Radioactivity Waste Policy Land Quality	Stochastic  Risk Assessment  Risk Management
4. Further Assessment		
Coverage	Туре	System Base
Site Specific Catchment Regional National	Procedural Mathematical Statistical Chemical Physical	Paper PC - DOS PC - Windows UNIX/Mainframe
Timescale I hour timestep Resolution 2km reaches	Biological Radioactivity	In-House Third Party
5. Links to Standards, Targets ar	id Databases (Cross-reference)	
Standards EQSs & Informal Region	nal Targets Databas	res Raw data from Water Quality Archive TDF data processing facility.
6. Comments		**
This software has been developed it estuaries.	by WRc and is used widely within the	Agency under licence. Use for non stratified
Contact Richard Freestone	Location: Leeds	Tel: 728 4671

1. Title TIDEWAY		Form Ref WQ008
2. Model Purpose		Acronym TIDEWAY
2-D Vertical modelling in Esti	varies.	
Users: NE. THAMES, NO	DETH WEST	
oscis.		
Frequency	Development	License
Routine	None	Licensed
Periodic 🗸	Arguing revision	If so, number 3
Occasionally	Being revised	Free
Y	Under development	
•		
3. General Assessment		
Media	Function	Risk Assessment
Air -	Water Quality	Qualitative
Land	Water Quality Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
<u> </u>	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	_]
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical /	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
	Physical /	
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Targe	ts and Databases (Cross-reference)	
Standards EQS, Estuary Stand	ards Databas	es
i. Comments		
TD W III		
tk. Wallingford software - use	d for stratified estuaries eg Tees, Tyne.	

ı

ı

l

į

ssessing the time of arrival of a polluting discharge during an incident.    Sers: North East, Thames? Anglian?	Assessing the time of arrival of a polluting discharge during an incident.    Joers: North East, Thames? Anglian?	Aggregated Dead Zor	ne	Form Ref WQ009
Sers:   North East, Thames? Anglian?	Sers:   North East, Thames? Anglian?	. Model Purpose		Acronym ADZ
outine   None   License	toutine	Assessing the time of arrival of a	polluting discharge during an incident.	i ja
outine   None   License	Routine None Arguing revision Being revised Under development Unde	isers: North East Thames?	Anglian'	7
outine riodic	Routine None Arguing revision Being revised Under development If so, number 3  Ceneral Assessment Pledia Function Risk Assessment Vater And Water Quality Water Resources Flood Defence Flood Defence Flood Defence Flood Defence Rec & Nav Conservation PIR Stochastic Deterministic Stepulation PIR Stochastic Provincinsing Water Policy Land Quality Radioactivity Risk Assessment Froiritising Troiritising Troirit			
Arguing revision Being revised Under development    General Assessment	Periodic Decasionally Being revised Under development	requency	Development	License
Being revised   Under development	Decasionally  Being revised Under development  Indexidation  Risk Assessment  Air  Air  Air  Air  Air  Air  Air  Ai	Routine	None	Licensed
Under development    General Assessment	Under development    Comments   Comments   Comments	Periodic	Arguing revision	If so, number 3
Under development    General Assessment	Under development    Media	Occasionally		Free
ledia  Function  Risk Assessment  Ir  Water Quality Auter Assessment  Water Resources Flood Defence Fisheries Rec & Nav Assessment  Rec & Nav Assessment  PIR Berational Function  PIR Beration  Pir	Media Function Risk Assessment  Air Water Quality Qualitative Land Water Resources Semi-Quantitative Water Flood Defence Quantilative Criteria Rec & Nav Conservation Deterministic Purpose Conservation PIR Stochastic Planning Water Policy Risk Assessment Planning Water Policy Risk Management Planning Water Policy Risk Management Prioritising Type System Base  Site Specific Procedural Paper Satchment PC -DOS Regional Valuntinal Chemical PR -PC -DOS PC -Windows Valuntional Chemical Physical Physical Physical Physical Physical Physical In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards Databases  Databases  NDZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents fonce by a variety of methods depending on the amount of data available in a catchment. It is often done manually.			<b>–</b>
It water Quality water Resources Semi-Quantitative Atter Flood Defence Quantitative Atter Fisheries Fisheries Rec & Nav Assessment Deterministic Segulation PIR Stochastic Parational Radioactivity Risk Assessment Attendant Radioactivity Risk Management Type System Base Stee Specific Mathematical Procedural Attendant Procedural Mathematical Procedural Mathematical Procedural Mathematical Procedural Attendant Physical Biological Radioactivity Risk Management Third Party Databases  Links to Standards, Targets and Databases (Cross-reference)  Landards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is once by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Water Water Valer	- T -		
Water Quality  Water Resources Aster  Flood Defence  Fisheries Rec & Nav Conservation PIR Perational Alaning Anioritising  Further Assessment  Coverage  Type  System Base  Assessment  Further Assessment  Coverage  Type  System Base  Type  Type  System Base  Type  System Base  Type  Type  Type  System Base  Type  Type  System Base  Type  Typ	Water Quality Water Resources Water	3. General Assessment		
water Plood Defence Quantitative Quantitative Plood Defence Pisheries Criteria Rec & Nav Assessment Deterministic PlR Stochastic PlR Stochastic PlR Radioactivity Risk Assessment Assessment Planning Waste Policy Land Quality Risk Management Proteitising Type System Base Stet Specific Procedural Mathematical Procedural	Water	Media	Function	Risk Assessment
water Plood Defence Quantitative Quantitative Plood Defence Pisheries Criteria Rec & Nav Assessment Deterministic PlR Stochastic PlR Stochastic PlR Radioactivity Risk Assessment Assessment Planning Waste Policy Land Quality Risk Management Proteitising Type System Base Stet Specific Procedural Mathematical Procedural	Water			
Flood Defence Fisheries Fisheries Rec & Nav Conservation PIR Stochastic PIR Radioactivity Radioactivity Radioactivity Risk Assessment Forerate  Forerate  Forerate  Forecedural Forecedura	Waste Flood Defence Criteria Rec & Nav Assessment Deterministic Criteria Rec & Nav Assessment Deterministic Conservation Deterministic Conservation PIR Stochastic Radioactivity Risk Assessment Piroritising Vaste Policy Risk Management Prioritising Land Quality Risk Management Prioritising Land Quality Risk Management Procedural Paper System Base Site Specific Procedural Paper PC - DOS Catchment Mathematical PC - DOS Statistical Chemical VINTX/Mainframe Physical Finescale Regional Radioactivity Third Party Find P	Air -	Water Quality	Qualitative
Flood Defence Fisheries Fisheries Rec & Nav Conservation PIR Stochastic PIR Radioactivity Radioactivity Radioactivity Risk Assessment Forerate  Forerate  Forerate  Forecedural Forecedura	Vaste   Flood Defence   Quantitative   Vaste   Fisheries   Rec & Nav   Assessment   Deterministic   Vaste   PIR   Stochastic   PIR   Stochastic   PIR   Radioactivity   Risk Assessment   Vaste Policy   Risk Management   Vaste Policy	and		Semi-Quantitative
Vaste   Fisheries   Rec & Nav   Assessment   Deterministic   Vaste   Perational   P	Vaste   Fisheries   Rec & Nav   Assessment   Deterministic   Fisheries   Rec & Nav   Assessment   Deterministic   Fisheries   Rec & Nav   Assessment   Deterministic   Fisheries   PIR   Stochastic   Radioactivity   Risk Assessment   Fisheries   Fi	Vater		
Rec & Nav Conservation PIR Stochastic Partitional PIR Radioactivity Risk Assessment Purther Assessment Poverage Type System Base  Type Sys	Rec & Nav Conservation PIR Perational PIR Radioactivity Risk Assessment Prioritising Procedural Assessment Assessment Procedural Rathment Regional Assessment Assessm	,		
cegulation PIR Stochastic Valenting Vaste Policy Risk Assessment Valenting Vaste Policy Risk Management Valenting Valentin	cgulation   PIR   Stochastic   PIR   Radioactivity   Risk Assessment   PIR   Risk Assessment   PIR   Risk Management   PIR   P	- 13.0		
egulation PIR Radioactivity Risk Assessment Risk Management PIR Radioactivity Risk Assessment Risk Management PIR Radioactivity Risk Management PIR Risk Management PI	egulation perational p			
Radioactivity Waste Policy Risk Assessment Risk Management Land Quality  Further Assessment  Overage Type System Base  Stee Specific Procedural Paper PC - DOS PC - Windows UNTX/Mainframe Physical In-House Radioactivity Risk Management  Links to Standards, Targets and Databases (Cross-reference)  Links to Standards, Targets and Databases (Cross-reference)  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is once by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Perational			Determinatio
Type System Base  Ite Specific	Planning			
Further Assessment  Overage Type System Base  ite Specific Procedural Paper PC - DOS PC - Windows UNIX/Mainframe Physical In-House Positional Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Databases	Prioritising Land Quality  I. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows Valional Chemical VINTX/Mainframe Physical VINTX/Mainframe  Firmescale Biological In-House Resolution Radioactivity Third Party  Standards Databases  Comments  Databases	Operational	Radioactivity	Risk Assessment
Further Assessment  Type  System Base  ite Specific	Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows National Physical Physical Timescale Biological In-House Resolution Radioactivity Third Party  Standards Databases  Comments  Databases	Planning	Waste Policy	Risk Management
Further Assessment  Type  System Base  ite Specific	Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows National Chemical VINIX/Mainframe Physical In-House Resolution Radioactivity Third Party  Standards Databases  Comments  ADZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents alone by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Prioritising	Land Quality	1
Type  System Base  ite Specific	Type  System Base  Type  System Base  Paper PC - DOS Regional National  Chemical Physical Phy		` ' —	
And the specific of the specif	Procedural Paper Procedural Proce	. Further Assessment		
atchment	Attendent Mathematical PC - DOS Regional Statistical PC - Windows Vational Chemical VINTX/Mainframe Physical In-House Resolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards Databases	Coverage	Туре	System Base
atchment	Attendent Mathematical PC - DOS Regional Statistical PC - Windows Vational Chemical VINTX/Mainframe Physical In-House Resolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards Databases	lite Specific	Procedural	Paper
Statistical Chemical Physical Physical Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Landards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Regional Statistical PC - Windows Value of travel during incidents fone by a variety of methods depending on the amount of data available in a catchment. It is often done manually.			
Actional Chemical Physical Physical In-House In-House Physical Physical In-House Physical In-House Physical In-House Physical In-House In-House In-House Physical In-House In-House Physical In-House In-	Inescale Biological In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	1	,	
Physical Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards  Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Physical Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	_	<u></u>	
Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards  Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Execution Biological In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	actorist .		UNIAMAINITAME
Links to Standards, Targets and Databases (Cross-reference)  tandards  Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Esolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.		( / Sicul	
Links to Standards, Targets and Databases (Cross-reference)  tandards  Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Links to Standards, Targets and Databases (Cross-reference)  tandards  Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.			
Databases  Comments  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	esolution	Radioactivity	Third Party
Databases  Comments  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	Databases  Databases  DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	. Links to Standards, Targets	and Databases (Cross-reference)	,,
DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.			
DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	tandards	Database	es
DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.			
DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents is one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	DZ refers to both a specific software package, and to a more generic methodology. Time of travel during incidents one by a variety of methods depending on the amount of data available in a catchment. It is often done manually.	. Comments		
one by a variety of methods depending on the amount of data available in a catchment. It is often done manually	one by a variety of methods depending on the amount of data available in a catchment. It is often done manually,			
		ne by a variety of methods der	ending on the amount of data available in	a catchment. It is often done manually.

1. Title POLLUX		Form Ref WQ010
2. Model Purpose		Acronym POLLUX
Users: North East, (via Lyonna	ise des Eaux)	
Frequency	Development	License
Routine	None	Licensed
Periodic /	Arguing revision	If so, number
Occasionally	Being revised	Free
36	Under development	+ - 4
3. General Assessment		
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational /	Radioactivity	Risk Assessment
Prioritising	Waste Policy Land Quality	Risk Management
<u> </u>	care quarky	
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
National	Chemical Physical	UNIX/Mainframe
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
. Links to Standards, Targets an		
Standards	Databases	
		<i>0</i>
. Comments		(A)
inder discussion, currently not valid	iated	

Title Construction of Bur	ids for Oil Storage	Form Ref WQ011	
Model Purpose		Acronym	
define cost effective storage	protection facilities to reduce the risk of (	oil) pollution of controlled waters.	
Agency EPOS, Stru & oil industry,	ctural Engineers. Construction companies		
requency	Development	License	
Dutine	None /	Licensed	
riodic	Arguing revision	If so, number	
ccasionally	Being revised	<del></del>	7
	Under development		
General Assessment			
edia	Function	Risk Assessment	
r	Water Quality	Qualitative	<del></del>
nd	Water Quality Water Resources	<b>─</b>	<del></del>
ater	Flood Defence	Quantitative Quantitative	
aste	Fisheries	Quantitative	
asic	Rec & Nav	<del></del>	
rpose	Conservation	<del></del>	
gulation	PIR	Stochastic	
perational	Radioactivity	Risk Assessment	<del></del> -
anning	Waste Policy	<del></del>	
oritising	Land Quality	Class ividing cinem	
Further Assessment		_	
everage	Туре	System Base	
a :=	V		
e Specific	Procedural		
tchment.	Mathematical	PC - DOS	
gional	Statistical	PC - Windows	
uonai	Chemical	UNIX/Mainframe	
mescale -	Physical /		
solution	Biological Radioactivity	In-House Third Party	/
Links to Standards, Target	s and Databases (Cross-reference)		
indards	Databa	ses None	
Comments			
D Project managed by CIRL	A undertaken by AOAs		
	-		1

t. Title Farm Activity an	d River Management System	Form Ref WQ012
2. Model Purpose		Acronym FARMS [&I]
	ed catchment scale model to simulate the run-off	1
arising from farm wastes, in	to rivers. It is used for developing farm wastem	anagement plans.
Users:		7
		4 ,,
Frequency	Development	License
Pausia.	No.	1 tierrand
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised Under development	Free
3. General Assessment	Onder development	
Media	Function	Risk Assessment
Air -	Wester Outslier	7 Ourthering
Land	Water Quality Water Resources	Qualitative Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Determinisitio
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	- Tubit Claims
l. Further Assessment	P3	
Coverage	Туре	System Base
Site Specific	Procedura	Paper
Catchment /	Mathematical /	PC - DOS 🗸
Regional	Statistical	PC - Windows
√ational √	Chemical /	UNIX/Mainframe
<del></del>	Physical	
imescale Weeks	Biological	In-House
desolution Field	Radioactivity	Third Party
. Links to Standards, Tai	gets and Databases (Cross-reference)	
trandands EOC + 12:	Our lies Obigations	December on a cost deciber 5
tandards EQSs and River	Quality Objectives Database	is Dependent on a cost database for information on disposal options.
L		mornation on disposal options.
. Comments		
ARMS has been tested on	the Cleddau catchement in South West Wales	and is now available for wider use within the
RA. The software was de-		and a state of the
30		
ontact Paul Mitchell	Location: Exeter	Tel: 724 4757

I. Title Simulation of Catchments	<u>. [</u>	Form Ref WQ013
2. Model Purpose	()	AcronymSIMCAT
Stochastic modelling of water quality in	catchments. It is used as a consent se	tting tool.
Jisers: Anglian, Thames, North Wes West.	t, West Midlands, Southern, South	
requency	Development	License
Routine	None	Licensed
Períodic	Arguing revision	If so, number.
Occasionally	Being revised	Free
. General Assessment	Under development	
vledia	Function	Risk Assessment
	· .	visk viscosinem
Air	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Vater	Flood Defence	Quantitative
Vaste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Deterministic
Regulation	PIR	Stochastic /
perational	Radioactivity	Risk Assessment
tanning .	Waste Policy	Risk Management
rioritising	Land Quality	
	_	
. Further Assessment	36	•
Coverage	Туре	System Base
ite Specific	Procedural	Paper
Catchment	Mathematical	PC -Windows 95/DOS 🗸
Legional	Statistical	PC - Windows
lational	Chemical ✓	UNIX/Mainframe
	Physical	
imescale min3, max5	Biological	In-House 🗸
esolution 100 m	Radioactivity	Third Party
. Links to Standards, Targets and Da	itabases (Cross-reference)	
seeded Division 4 3 4		[85.40.27]
tandards River standards (expressed as		s SIMCAT relies on river specific data files
percentiles) & site specific tar	gets.	for flow and quality data and also uses data
	*	from WQ archives.
. Comments	•	
IMCAT is auto-calibrating and very ou	ick to set up. It automatically calculat	es the statistical confidence limits for each
sult + the consents required to meet Ri		as the standards that is caul
sair and competite tedingen to there to	ver Quarrey Demical Case.	

I. Title Temporal Overall Model	for Catchments -	Form Ref WQ014
2. Model Purpose	•	Acronym TOMCAT
Stochastic modelling of water qualit	y in catchments. It may be used as a tool f	or consent setting in order to achieve river
quanty standards and may also be us	ed as a planning tool to moder, for examp	le, phosphate to assist targeting investment.
Y 15 70		
Jisers: North East, Thames, Sout	nem	Y
		- 0.0
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
	Under development	
. General Assessment	<del></del> -	
eledia	Function	Risk Assessment
Air	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Vater	Flood Detence	Quantitative
Vaste	Fisheries	Criteria
6	Rec & Nav	Assessment
urpose	Conservation	Deterministic -
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
lanning /	Waste Policy	Risk Management
Tioridising	Land Quality	<b></b>
. Further Assessment	10.0	
Coverage	Туре	System Base
ite Specific	Procedural	Paper
atchment	Mathematical 🗸	PC - DOS
egional	Statistical	PC - Windows
lational	Chemical	UNIX/Maintrame
imescale min l vr. max 3 vr	Physical Piological	- In Rame
esolution soo m reaches	Biological Radioactivity	In-House Third Party
SOUTH PERSON	Radioactivity	
. Links to Standards, Targets and	Databases (Cross-reference)	
tandards	Database	•
	Dambas	
. Comments	*1 +	
<del></del>		<del></del>
		÷

Í

Title Incident	Reaction Interfac	e System	Form Ref WQ015
Model Purpose			Acronym [RIS
			aken for a pollutant to travel down a catchment
potable water inta	kes. The model	s primary function is for intake protect	tion purposes.
sers: Field stat	T modellers & w	ater companies.	
requency	÷	Development	License
outine		None	Licensed
riodic		Arguing revision	If so, number
ccasionally	<del></del>	Being revised	Free
	لــنّــا	Under development	┥
General Assessn	nent		<b>_</b> J
ledia		Function	Risk Assessment
ir		Water Quality	Qualitative
and		Water Resources	Semi-Quantitative
ater	1	Flood Defence	Quantitative
aste		Fisheries	Criteria
	2.74	Rec & Nav	Assessment
urpose		Conservation	Deterministic ✓
egulation		PIR	Stochastic
perational	<del></del>	Radioactivity	Risk Assessment
anning		Waste Policy	Risk Management
ioritising		Land Quality	
Further Assessm	ient '		
overage		Туре	System Base
J			
te Specific		Procedural ✓	Paper
atchment		Mathematical /	PC - DOS
gional		Statistical	PC · Windows
ational		Chemical Physical	UNIX/Mainframe
mescale	Luniciónio 18 acconda	Biological	In-House
solution	lium reaches	Radioactivity	Third Party
Links to Standar	rds, Targets and	Databases (Cross-reference)	
andards	140		es Lotus Spreadsheet contamining time of
andarus		Databas	ravel raw data. Linked to ADZ.
Comments			
		(#)	

-

Ì

. Title Pollution Prevention	Manual	Form Ref WQ016
. Model Purpose		Acronym
	to all Environment Agency field officers on	1 pollution prevention issues including site
sits, risk assessment and risk r	nanagement.	
Sers: Area EP staff, Region	nal and Head Office Staff	]
requency	Development	License
outine /	7 None	Licensed
riodic	Arguing revision	if so, number
ccasionally	Being revised ✓	Free
	Under development	<u>ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا ا </u>
General Assessment		
ledia	Function	Risk Assessment
ir	Water Quality	Qualitative
and	Water Quality Water Resources	Semi-Quantitative
/ater	Flood Defence	Quantitative
/aste	Fisheries	Criteria
aste	Rec & Nav	Assessment
	Conservation	Probabilistic/Determ
urpose egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
rioritising	Land Quality	— LOSK Wallage Men.
L	Land Quanty	
Further Assessment		
overage	Туре	System Base
te Specific	Procedural /	Paper -
atchment	Mathematical	PC - DOS
egional 🗸	Statistical	PC - Windows
ational 🗸	Chemical /	UNIX/Mainframe
	Physical /	
mescale	Biological	In-House /
esolution	Radioactivity :	Third Party
Links to Standards, Targets	and Databases (Cross-reference)	
andards	Database	es
Comments		
hara annuality Wassa Ban	The minimum and addressed in a	and an idea on that goes into the
nere appropriate Wastes Regi anual.	ilatory/Disposal issues are addressed in a	ny new or revised guidance that goes into the

Title Poll	ution Prevention Site Visits			Form Ref WQ017	
Model Purp	oose	<i>(</i> 72)		Acronym	
	nanage risk on wide ranging	types of site to prev	ent pollution and impro-	ve water quality. All re	egions
idenake some	form of PP activity.		0		
sers: Are	a EP Staff	-			
requency		Development		License	÷
outine	<b>4</b> + 1	None	1	Licensed	
eriodic	-	Arguing revision		If so, number	
ccasionally		Being revised		Free	
,	<u> </u>	Under developmen	16		
. General As	sessment	·	•		
ledia		Function		Risk Assessment	
:_		Water Oveller		Qualitative	
ir	ļI	Water Quality	<b>/</b>	•	<del></del>
and *	<u> </u>	Water Resources	A.C.	Semi-Quantitative	
Vater	<u> </u>	Flood Defence		Quantitative	<b>-</b>
Vaste		Fisheries		Criteria	
		Rec & Nav	<b></b>	Assessment Deterministic	
urpose		Conservation			
egulation	<del>  '</del>	PIR		Stochastic	
perational		Radioactivity		Risk Assessment	
lanning		Waste Policy		Risk Management	
rioritising		Land Quality			
. Further As	sessment				
overage		Туре		System Base	
ite Specific		Procedural		Paper	
atchment	<del>                                     </del>	Mathematical		PC - DOS	100
egional		Statistical		PC - Windows	
ational		Chemical		UNIX/Mainframe	
		Physical			
imescale		Biological		In-House	
esolution		Radioactivity		Third Party	
. Links to St	andards, Targets and Data	ibases (Cross-refere	ence)	20	-
<u> </u>					
andards				atabase under develop	ment/roll out
L		A.	to region	<u>.                                    </u>	
Comments					- 4
	owards making site visits			imber of site visits fo	r preventing
ater pollution	has decreased markedly of	late because of insu	fficient resource.		

. Title Works Notice Risk	Assessment Forms	Form Ref WQ018
Model Purpose		Acronym
o provide a consistent basis fo	or deciding whether a works notice should be	served to prevent water pollution.
sers: Area EP Staff		100
requency	Development	License
outine	None	Licensed
riodic	Arguing revision	If so, number
ccasionally	Being revised	Free
· · · · · · · · · · · · · · · · · · ·	Under development	-
General Assessment	<del></del>	<b></b>
ledia	Function	Risk Assessment
ir	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
/ater	Flood Defence	Quantitative
aste	Fisheries	Criteria
<u> </u>	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
rioritising	Land Quality	TOTAL INTERNATIONAL CONTROL OF THE PROPERTY OF
Further Assessment		
overag <b>e</b>	Туре	System Base
te Specific	Procedural \	Paper
atchment	Mathematical	PC - DOS
egional	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe
	Physical	
mescale	Biological	In-House
esolution	Radioactivity	Third Party
Links to Standards, Targe	ts and Databases (Cross-reference)	
andards	Parebos	es Provision made within new ground water
andards	Database	regulations database.
Comments		
	*	
	nent Agency has been able to serve Works N	
ssessment form within the gu	idance provides the basis for doing this cons	sistently.

1.0

Ą

ı

Title Prediction of Pesticide Po	ollution in the Environment.	Form Ref WQ019
Model Purpose	•	Acronym POPPLE
ediction of Pesticide Pollution in t	he Environment.	
sers: To be implemented in Refor Agency use only.	gions and National Centres. This model is	5
requency	Development	License
outine	None	Licensed
riodic	Arguing revision	If so, number
casionally	Being revised	Free
	Under development	1
General Assessment		9 4
edia	Function	Risk Assessment
	Water Quality	Qualitative
and .	Water Resources	Semi-Quantitative /
ater	Flood Defence	Quantitative
aste	Fisheries	Criteria
	Rec & Nav	Assessment
rpose	Conservation	Probabilistic/Determ
gulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
ioritising	Land Quality	]
Further Assessment	i.	
overage	Type	System Base
e Specific	Procedural	Paper
tchment	Mathematical /	PC - DOS
gional	Statistical -	PC - Windows
itional	Chemical 🗸	'UNIX/Mainframe
- 1	Physical	
mescale Few days-annual	Biological	In-House
solution 10 km 2	Radioactivity	Third Party
Links to Standards, Targets and	Databases (Cross-reference)	1
indards EQSs and Drinking Water	r Standards Databases	Many/GIS Layers
Comments		4.
	9.7	

Ì

Î

I. Title FARM Pollution Prev	ention Visit Proforma	Form Ref WQ020
2. Model Purpose		Acronym
Consistent data collection on fare	n storage facilities and risk assessment of	storage operations.
Users: Area EP Staff	· .	
Frequency	Development	License
Routine /	None Arguing revision	Licensed If so, number
Occasionally	Being revised Under development	Free
3. General Assessment	ones accorpinant	
Media	. Function	Risk Assessment
Air Land	Water Quality Water Resources	Qualitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ 🗸
Regulation	PIR	- Stochastic
Operational	Radioactivity	Risk Assessment
Planning Prioritising	Waste Policy Land Quality	Risk Management
Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	T Bones
Catchment	Mathematical	Paper PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical 🗸	UNIX/Mainframe
L	Physical	
imescale	Biological	In-House
Resolution	Radioactivity	Third Party
. Links to Standards, Targets :	and Databases (Cross-reference)	•
tandards	Database	NVZ database transferred from MAFF.
. Comments		
	d significantly in recent years but Enviro in NVZs to ensure compliance.	nment Agency has new responsibilities under

...

Sers:   Environment Protection & Pollution Prevention Staff	Sers:   Environment Protection & Pollution Prevention Staff	. Title P	ollution Risk from Ac	cidental Influx to Rivers & Estuaries	Form Ref WQ021
Trequency    Development   License	Development   License	. Model P	urpose		Acronym PRAIRIE
Sers:   Environment Protection & Pollution Prevention Staff	Development   License	o predict co	onsequences of accide	ntal releases of chemicals into water cour	rees
Routine	Development   License	·	<u> </u>		
Prequency  Routine  None Arguing revision Being revised Under development  Nedia  Function  Risk Assessment  Nedia  Function  Risk Assessment  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation Pergose Regulation Pir Radionativity Pir Radionativity Radionativity Radionativity Risk Assessment  Nater Poperational Radionativity Risk Assessment Risk Assessment  Procedural Radionativity Risk Assessment Ris	Frequency  Development  License  Routine  * None Periodic Decasionally Being revised Under development  Development  Media  Function  Risk Assessment  Media  Function  Risk Assessment  Media  Function  Risk Assessment  Media  Function  Risk Assessment  Mater Quality Water Resources Waster Flood Defence Fisheries Rec & Nav Conservation Deterministic  Purpose Regulation PIR Purpose Regulation PIR Radioactivity Maste Policy Land Quality  Deterministic  Assessment  Risk Assessment Risk Assessment Risk Assessment Risk Assessment Risk Assessment Risk Management  Developed And Quality  Deterministic  Procedural Mathematical Contense Physical Procedural Physical Pinescale Resolution Risk Management  Developed In-House Third Party  Developed to support Dee Protection Zone.				
Routine * None	Routine	JSETS.		1 & Pollution Prevention State	
Routine	Routine			<del></del>	_
Conservation   Cons	Periodic Arguing revision Being revised Under development If so, number 20 Decasionally Being revised Under development If so, number 20 Decasionally Being revised Under development If so, number 20 Decasionally Being revision Being revision Free If so, number 20 Decasionally Being revision Being revised Under development If so, number 20 Decasionally Being revision Being revised Under development If so, number 20 Decasionally Being revision Being revised If so, number 20 Decasionally Being revision Being revision Productivity Water Resources Conservation Productivity Pr	requency	-4	Development	License
Periodic Decasionally Being revised Under development	Periodic Decasionally Being revision Being revised Under development	Courine	*	None	Licensed
Being revised Under development  Being revised Under development  Being revised Under development  Free  B. General Assessment  Water Assessment  Water Quality Water Resources Flood Defence Pourpose Rec & Nav Rec & Nav Conservation PIR Poperational Planning Prioritising  Being revised Under development  Free  Risk Assessment Qualitative Quantitative Criteria Assessment Rec & Nav Assessment Peterministic PIR Stochastic Poperational Radioactivity Rask Assessment Risk Assessment Risk Management  Froritising  Froritising  Fruther Assessment  Coverage  Type  System Base  System Base  Site Specific Procedural Mathematical Free  Poc - DOS Poc - Windows Vational Physical Physical Physical Physical Pimescale	Decasionally  Being revised Under development  Decasionally  Being revised Under development  Free  Decasional  Being revised Under development  Free  Decasional  Water Quality  Validative Semi-Quantitative Criteria Rec & Nav Conservation Deterministic  Frisheries Rec & Nav Conservation Deterministic  Free  Department  Deterministic  Free  D		<del>                                     </del>		
Under development	Under development	-	. —		
Function   Risk Assessment	Media Function Risk Assessment  Air Air And Water Quality Water Resources Air And Water Resources Water Flood Defence Pisherics Rec & Nav Assessment  Corpose Regulation PIR Deterministic Planning Waste Policy Prioritising Prioritising Prioritising Procedural Assessment Coverage Type System Base  Site Specific Catchment Regional Statistical Procedural	/ccasionair,	L		- Free
Water Quality Water Resources Water Water Flood Defence Fisheries Rec & Nav Conservation Purpose Regulation Operational Planning Prioritising  Further Assessment Coverage  Type  Type  System Base  Rational Procedural Mathematical Mathematical Procedural Mathematical Mathematical Mational Physical Physical Physical Biological  Water Quality  Qualitative Semi-Quantitative Quantitative Quantitative Remi-Quantitative Remi-Quantitative Quantitative Remi-Quantitative Remi-Quantitative Quantitative Remi-Quantitative Quantitative Remi-Quantitative Quantitative Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Resources Res & Nav Respective Regulation Respective Respectiv	Air Land Water Quality Water Resources Flood Defence Waste Waste Flood Defence Fisheries Rec & Nav Purpose Regulation PIR Paning Waste Policy Land Quality Radioactivity Risk Assessment Planning Waste Policy Land Quality  Further Assessment Coverage Type System Base Site Specific Recional Statistical National Chemical Physical Biological Radioactivity Risk Management Funescale Resolution Radioactivity Risk Management Risk Manag	: General	Assessment	Under development	J
Water Quality Water Resources Water Water Flood Defence Fisheries Rec & Nav Conservation Purpose Regulation Operational Planning Prioritising  Further Assessment Coverage  Type  Type  System Base  Rational Procedural Mathematical Mathematical Procedural Mathematical Mathematical Mational Physical Physical Physical Biological  Water Quality  Qualitative Semi-Quantitative Quantitative Quantitative Remi-Quantitative Remi-Quantitative Quantitative Remi-Quantitative Remi-Quantitative Quantitative Remi-Quantitative Quantitative Remi-Quantitative Quantitative Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Resources Remi-Quantitative Resources Res & Nav Respective Regulation Respective Respectiv	Air Land Water Resources Water Flood Defence Waste Waste Waste Fisheries Rec & Nav Purpose Regulation Operational Planning Water Policy Land Quality Water Fisheries Rec & Nav Pir Resources Rec & Nav Assessment Operational Radioactivity Raisk Assessment Rask Management Prioritising Assessment Risk Management Risk Management Risk Management Regional Assessment Risk Management Risk				
Water Water Flood Defence Quantitative Quantitative Fisheries Rec & Nav Conservation PIR Stochastic PIR Radioactivity Risk Assessment Risk Management Proritising Type System Base  System Base  Further Assessment Assessment Risk Management Procedural Rathment Mathematical PC - DOS Rational Statistical PC - Windows Valuational Physical Physical Biological In-House	Water Resources Water Flood Defence Fisheries Rec & Nav Purpose Regulation PIR Radioactivity Planning Planning Waste Policy Land Quality  4. Further Assessment Coverage Type Site Specific Catchment Regional National Chemical Physical Physical Physical Biological Radioactivity Risk to Standards, Targets and Databases (Cross-reference) Standards Comments	ledia		Function	Risk Assessment
Water Water Water Waste Flood Defence Fisheries Rec & Nav Conservation PIR Planning Prioritising  Further Assessment  Coverage Type  Type  System Base  Semi-Quantitative Quantitative Quantitative Quantitative Rock Nav Conservation Deterministic Fisheries Rec & Nav Conservation PIR Stochastic Risk Assessment Risk Management Risk Management Risk Management  Procedural Mathematical System Base  System Base  Fro Cedural Mathematical PC - DOS Regional National Physical Physical Physical Biological  In-House	Water   Flood Defence   Quantitative   Valer   Plood Defence   Quantitative   Valer   Plood Defence   Quantitative   Valer   Prisheries   Rec & Nav   Assessment   Deterministic   Valer   PlR   Stochastic   Valer   PlR   Stochastic   Valer   Planning   Waste Policy   Radioactivity   Risk Assessment   Planning   Waste Policy   Land Quality   Prioritising   Valer   Valer   Procedural   Pochastic   Procedural   Pochastic   Procedural   Pochastic	Air	[	Water Quality	7 Qualitative
Water Flood Defence Quantitative Criteria Rec & Nav Assessment Deterministic Assessment Deterministic Assessment Planning Radioactivity Risk Assessment Risk Management Risk Management Deterministic Assessment Risk Management Risk Manageme	Water Flood Defence Fisheries Criteria Assessment Deterministic Assessment Deterministic Assessment Deterministic Assessment PIR Stochastic Assessment Radioactivity Risk Assessment Risk Assessment Risk Management Planning Waste Policy Land Quality  4. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PC - DOS Regional Statistical PC - Windows Asteronal Physical Physical Physical Physical Physical Physical Regional Radioactivity Third Party Assessment Planting Physical Resolution Radioactivity Third Party Assessment Planting Physical Radioactivity Third Party Assessment Planting Physical Physical Physical Physical Radioactivity Third Party Assessment Planting Paper PC - Windows PC - W	and	<del>  </del>		
Waste	Waste	Vater	<del></del>		
Rec & Nav Conservation PIR Poperational Planning Prioritising  Rec & Nav Conservation PIR Radioactivity Radioactivity Risk Assessment Risk Management Prioritising  Rec & Nav Conservation PIR Radioactivity Risk Assessment Risk Management Risk Management Risk Management  Regional Regional Regional Regional Regional Rec & Nav Conservation PIR Radioactivity Risk Assessment Risk Management Risk Manag	Rec & Nav Conservation Purpose Conservation PlR Planting Planting Prioritising  Assessment Planting Prioritising  Assessment Planting Prioritising  Assessment Risk Assessment Risk Management  isk Management  Assessment Risk Management Risk Ma	Vaste	<del></del>		<b>-</b>
Purpose Regulation PIR Radioactivity Radioactivity Prioritising Research Regulation Poperational Radioactivity Radioactivity Rask Assessment Risk Assessment Risk Management R	Purpose Regulation PIR Radioactivity Radioactivity Radioactivity Rask Assessment Risk Assessment Risk Management Risk Manageme		لــــــــا		
Regulation	Regulation Operational Operational Planning Prioritising A. Further Assessment Coverage Type System Base Site Specific Catchment Regional National Othermical Physical Physical Biological Resolution Resolution Coverage Biological Resolution Resolution Contains toxicity information Databases Integral Operational Plan	urnose			
Planning Waste Policy Land Quality  Prioritising Land Quality  Risk Assessment Risk Management  Prioritising Land Quality  Description Land Quality  Type System Base  Site Specific Procedural Paper Paper PC - DOS Statistical PC - DOS Statistical PC - Windows Vational Chemical VINIX/Mainframe Physical Physical Biological In-House	Planning   Waste Policy   Risk Assessment   Risk Management	-			المستشديا
Planning Waste Policy Land Quality  Prioritising Land Quality  Risk Management  Land Quality  Type System Base  Site Specific Procedural Paper Latchment Mathematical PC - DOS Legional Statistical PC - Windows  Vational Physical UNIX/Mainframe  Physical Pimescale  Biological In-House	Planning Prioritising Waste Policy Land Quality  4. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PC - DOS PC - DOS PC - Windows PN - Windows	-	<del>                                     </del>		
Entripricition Coverage Type System Base  Site Specific Procedural Paper Paper PC - DOS Statistical PC - Windows Statistical PC - Windows Statistical PC - Windows Statistical Physical Physical Physical Physical Physical Physical Pimescale Biological In-House	Prioritising  Land Quality  4. Further Assessment  Coverage  Type  System Base  Site Specific  Procedural  Paper  Catchment  Adhematical  PC - DOS  Regional  Statistical  National  Chemical  Physical  Physical  Physical  Firmescale  Resolution  Resolution  Resolution  Databases [In-House]  Third Party  Comments  Comments  Comments  Comments  Coverage  Land Quality  System Base  Paper  Paper  PC - DOS  PC - Windows  VINIX/Mainframe  Physical  In-House  Third Party  Comments  Contains toxicity information  Databases [Integral]	-	<del>  </del>		
Type System Base  Site Specific Procedural Paper PC - DOS Statistical PC - Windows Vational Chemical Physical Physical Physical Physical Physical Pimescale Biological In-House	A. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PC - DOS PC - Windows VINIX/Mainframe Physical VINIX/Mainframe Ph	_	<del>  </del>		- Mak Management
Type System Base  Site Specific Procedural Paper PC - DOS Segional Statistical PC - Windows Vational Physical Physical Physical Physical Pimescale Biological In-House	Coverage  Type  System Base  Site Specific  Procedural  Mathematical  Regional  National  Chemical  Physical  Physical  Physical  Physical  Resolution  Standards, Targets and Databases (Cross-reference)  Standards  Contains toxicity information  Databases Integral  Developed to support Dee Protection Zone.	_	L	Land County	1
Site Specific Procedural Paper Paper PC - DOS Segional Statistical PC - Windows Vational Physical Physical In-House	Site Specific Procedural Paper PC - DOS PC - DOS PC - Windows Vational Chemical Physical Phys	. Further A	Assessment	- v <del>.</del>	
Catchment	Catchment Regional National Statistical Chemical Physical	overage		Туре	System Base
Catchment	Catchment Regional National Na	ite Specific		Procedural	1 Paper
Regional Statistical PC - Windows Vational Chemical UNIX/Mainframe Physical Biological In-House	Regional Statistical PC - Windows Wind	•	<del>  - ,    </del>		J
Chemical	National Chemical VINIX/Mainframe Physical In-House Resolution Radioactivity Third Party VIIII Databases Integral  Standards Contains toxicity information Databases Integral  Developed to support Dee Protection Zone.		<u> </u>		
Physical In-House	Physical Biological Resolution Radioactivity Third Party  Standards, Targets and Databases (Cross-reference)  Standards Contains toxicity information Databases Integral  Comments  Developed to support Dee Protection Zone.	-	<b>├</b> ──┤	+	1 - 1
imescale Biological In-House	Resolution  Biological In-House Third Party  Third Party  Third Party  Third Party  Comments  Comments  Developed to support Dee Protection Zone.		<u> </u>	1	. L
2.0.08.00.	Resolution Radioactivity Third Party  5. Links to Standards, Targets and Databases (Cross-reference)  Standards Contains toxicity information  Databases Integral  6. Comments  Developed to support Dee Protection Zone.	imescale			In-House
Cadioactivity	5. Links to Standards, Targets and Databases (Cross-reference)  Standards Contains toxicity information  Databases Integral  6. Comments  Developed to support Dee Protection Zone.	_	<b>├─</b> ─┪		
	Standards Contains toxicity information  Databases Integral  Comments  Developed to support Dee Protection Zone.	legional lational imescale		Statistical Chemical Physical Biological	PC - Windows UNIX/Mainframe In-House
	Developed to support Dee Protection Zone.	tandarda 🔽			
Indut Control Control	Developed to support Dee Protection Zone.	tanuarus (Co	ontains toxicity inform	iation Databases	Integral
tandards Contains toxicity information Databases Integral	Developed to support Dee Protection Zone.	L-			
		. Commen	is		*
		eveloped to	support Dec Protection	70ne	
. Comments	Tradesity of the varies between (egions and a cas.				
Comments Developed to support Dee Protection Zone.		rrequency	OLUBE VALUES DELWELL	ובצוטווז מונע מוכש.	i i

Development  Routine Periodic Decasionally  Conservation  Air Control	
Purpose Routine Prequency Routine Periodic Decasionally Roing revision Being revised Under development Roution Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation Planning Planning Radioactivity Waste Policy	License  Licensed If so, number Free  Risk Assessment  Qualitative Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Purpose Routine Periodic Decasionally  Media Air Land Water Water Waste Purpose Regulation Decasional Waste Planning  Development  None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Radioactivity Waste Policy	Licensed If so, number Free  Risk Assessment  Qualitative Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Purpose Routine Prequency Routine Periodic Decasionally Roing revision Being revised Under development Roution Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation Planning Planning Radioactivity Waste Policy	Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Routine Periodic Decasionally Being revised Under development  Air Land Water Water Waste Waste Purpose Regulation Departional Planning  None Arguing revision Being revised Under development  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Radioactivity Waste Policy	Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Periodic Decasionally Decasionally Decasionally Decasionally Decasionally Decasionally Decasionally Decasionally Decasionally Decasional Decasi	Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Periodic Occasionally  Being revised Under development  Air Land Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation Planning  Planning  Arguing revision Being revised Under development  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Radioactivity Waste Policy	Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Decasionally  Being revised Under development  General Assessment  Water Quality Water Resources Water Waste  Fisheries Rec & Nav Conservation Planning  Planning  Waste Policy	Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Under development  General Assessment  Media  Function  Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation Planning  Planning  Waste Policy	Risk Assessment  Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Air Water Quality Land Water Resources Water Flood Defence Waste Fisheries Rec & Nav Conservation Purpose Conservation Regulation FIR Department Planning Waste Policy	Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Air Water Quality Land Water Resources Water Flood Defence Waste Fisheries Rec & Nav Conservation Planning Radioactivity Waste Policy	Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Water Resources Water  Waste  Fisheries Rec & Nav  Conservation PIR  Operational  Planning  Water Resources  Flood Defence  Fisheries  Rec & Nav  Conservation  PIR  Radioactivity  Waste Policy	Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Water Resources Water  Waste  Fisheries Rec & Nav  Conservation PIR  Operational  Planning  Water Resources  Flood Defence  Fisheries  Rec & Nav  Conservation  PIR  Radioactivity  Waste Policy	Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic
Water  Waste  Flood Defence  Fisheries  Rec & Nav  Conservation  Purpose  Regulation  PIR  Departional  Radioactivity  Planning  Waste Policy	Quantitative  Criteria  Assessment  Probabilistic/Determ  Stochastic
Waste  Fisheries Rec & Nav  Conservation  Regulation  PIR  Departional  Radioactivity  Vaste Policy	Criteria Assessment Probabilistic/Determ Stochastic
Rec & Nav  Purpose  Conservation  PIR  Operational  Planning  Rec & Nav  Conservation  PIR  Radioactivity  Waste Policy	Assessment Probabilistic/Determ  Stochastic  ✓
Purpose Conservation Regulation PIR Operational Radioactivity Planning Waste Policy	Probabilistic/Determ  Stochastic
Regulation	Stochastic
Operational	
Planning	Risk Assessment
Prioritising Land Quality	Risk Management
	,
· ·	<del></del>
5. Further Assessment	
Coverage Type	System Base
Site Specific Procedural	✓ Paper ✓
Catchment Mathematical	PC - DOS
Regional Statistical	PC - Windows
Vational Chemical	VNIX/Mainframe
Physical	J. ONEX (Viannianie
Timescale Biological	In-House
Resolution Radioactivity	Third Party
i. Links to Standards, Targets and Databases (Cross-reference)	2
Intermittent Standards and UPM, EQSs, RE Classification.	abases Specific to application.
. Comments	4.

I

I

I

Title Decision Support Tool		Form Ref WQ023
Model Purpose		Acronym DECIST
ake better decisions when decidin	g levels of data collection in urban pollu	tion management studies.
ers: Water Quality Planners		
requency	Development	License
outine	None ✓	Licensed
riodic	Arguing revision	If so, number
casionally	Being revised	Free 🗸
*	Under development	140 03
General Assessment		
edia	Function	Risk Assessment
, ,	Water Quality	Qualitative ,
nd ———	Water Resources	Semi-Quantitative
ater	Flood Defence	Quantitative \(  \)
aste	Fisheries	Criteria
	Rec & Nav	Assessment
rpose	Conservation	Probabilistic/Determ
gulation	PIR	Stochastic /
perational	Radioactivity	Risk Assessment
nning	Waste Policy	Risk Management
oritising	Land Quality	Risk Management
		-
Further Assessment		30
verage	Туре	System Base
e Specific	Procedural	Paper
tchment	7	PC - DOS
gional	Mathematical  Statistical	PC - Windows
tional	Chemical	UNIX/Mainframe
	Physical	ON IX Maintaine
nescale 2 monthly	Biological	In-House
solution	Radioactivity	Third Party
<u></u>		1 miletarly
Links to Standards, Targets and	d Databases (Cross-reference)	
ndards Water Quality Intermitter	it (UPM) Databases	s
Comments		
cely to be used in only 2 or 3 region	ons (North West & Severn Trent)	
		- T

B

I

ATCHIS is a system for evaluating the risk of specific pesticides being present in specified surface water and roundwater locations.    Journal	I. Title Catchment Invento	ry System	Form Ref WQ024
Seers:	2. Model Purpose		Acronym CATCHIS
Development   License		uating the risk of specific pesticides being pre-	sent in specified surface water and
requency  Development  None Arguing revision Being revised Under development  Arguing revision Being revised Under development  Risk Assessment  Risk Assessment  Arguing revised Under development  Risk Assessment  Arguing revision Being revised Under development  Risk Assessment  Arguing revision Being revised Under development  Risk Assessment  Arguing revision Being revised Under development  Risk Assessment  Arguing revision Free  Under development  Free  Under development  Risk Assessment  Arguing revision Free  Under development  Free  Free  Under development  Free  Free  Under development  Free  Free  Under development	groundwater rocarions.	141	
Comments  None Arguing revision Being revised Under development  Licensed If so, number Free  Licensed Under development  Risk Assessment  Risk Assessment  Function  Risk Assessment  Agent Vater Vality Ader Vality Vater Vater Vality Vali	Jsers:		
eriodic   Arguing revision   Being revised   Under development	requency	Development	License
Arguing revision Being revised Under development  General Assessment  If so, number Free  Conserval Assessment  If so, number Free  Condition  Risk Assessment  If so, number Free  Condition  Risk Assessment  If so, number Free  Condition  Risk Assessment  Qualitative  Qualitative  Quantitative  Quantitative  Plood Defence Pisheries  Criteria  Rec & Nav  Conservation Probabilistic/Determ  Conservation Probabilistic/Determ  Probabilistic/Determ  Probabilistic/Determ  Radioactivity Radioactivity Risk Assessment  Valuation  Risk Assessment  Risk Assessment  Risk Assessment  Risk Assessment  Valuation  Valuation  Risk Assessment  Valuation  Risk Assessment  Valuation  Risk Assessment  Valuation  Valuation  Risk Assessment  Valuation  Valuation  Risk Assessment  Valuation  Risk Assessment  Valuation  Risk Assessment  Valuation  Valuation  Risk Assessment  Valuat	Routine	None	Licensed
Being revised   Under development   Free	Periodic -	Arguing revision	
Under development    Caneral Assessment	Occasionally		
General Assessment			- · · · · · · · · · · · · · · · · · · ·
Function  Risk Assessment  Water Quality And Water Resources Aster Aster Flood Defence Fisheries Rec & Nav Assessment  Probabilistic/Determ Probabilistic/Determ Probabilistic/Determ Probabilistic/Determ Assessment Probabilistic/Determ Probabilistic/Determ Probabilistic/Determ Assessment Assessment Probabilistic/Determ Assessment Assessment Assessme		Onder development	_
Water Quality Water Resources And Water Resources Water Resour	3. General Assessment		
And Acter	vledia	Function	Risk Assessment
And Acter	r——	7 0	Outlier -
Vaste		<del>-</del>	
Assessment  Propose  Conservation  PIR  Radioactivity  Maste Policy  Land Quality  Further Assessment  Procedural  Mathematical  Procedural  Mathematical  Procedural  Mathematical  Procedural  Moste Specific  Actional  Chemical  Physical  Physica			
Rec & Nav	Vater	Flood Defence	Quantitative
cgulation	Vaste	Fisheries	Criteria
cgulation	<u></u>	Rec & Nav	Assessment
egulation perational Radioactivity Risk Assessment Risk Assessment Risk Management Risk Manage	urpose		Probabilistic/Determ /
perational Radioactivity Waste Policy Land Quality  Further Assessment  overage Type System Base  its Specific Mathematical Poc - DOS egional ational Chemical Physical Biological Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  andards Databases Dependent on SSLRC database on soil characteriactics and on pesticide information.			
Inning		_1	
Further Assessment  Overage Type System Base  Ite Specific			
Type  System Base  Type  System Base  Procedural  Adhematical  PC - DOS  PC - Windows  UNIX/Mainframe  Physical  Phy	rioritising		Nisk Wianagement
Procedural Adathematical Additional Additiona	. Further Assessment	-	
Procedural Adathematical Additional Additiona	Coverage	Туре	System Base
Astchment	3	-7	- <b>,</b>
Astchment	ite Specific	Procedural	Paper
Statistical Actional Chemical Physical Physical Physical Actional Chemical Physical Physical Actional	Catchment	Mathematical	
Actional Chemical Physical Physical In-House In-House Physical Physical In-House In-House Physical Physical In-House In-			
Physical Biological Radioactivity Bin-House Third Party Links to Standards, Targets and Databases (Cross-reference)  andards Databases Dependent on SSLRC database on soil characteriactics and on pesticide information.			
Einks to Standards, Targets and Databases (Cross-reference)  andards  Databases Dependent on SSLRC database on soil characteriactics and on pesticide information.			- Oldiviatingue -
Links to Standards, Targets and Databases (Cross-reference)  andards  Databases Dependent on SSLRC database on soil characteriactics and on pesticide information.			<del> </del>
Links to Standards, Targets and Databases (Cross-reference)  andards  Databases Dependent on SSLRC database on soil characteriactics and on pesticide information.  Comments			
Databases Dependent on SSLRC database on soil characterizatics and on pesticide information.  Comments	esolution	Radioactivity	Third Party
Comments  characteriactics and on pesticide information.	. Links to Standards, Targe	ts and Databases (Cross-reference)	*
Comments  characteriactics and on pesticide information.	41-12	1 (a) (b)	
Comments information.	tandards	Database	
Comments		10	
	. Comments	<del></del>	information.
ATCHIS has been developed by SSLRC with Severn Trent Water Plc.			
	ATCHIS has been developed	by SSLRC with Severn Trent Water Plc.	
	<u> </u>		

Ġ.

I. Title	Source Protection Zones	nodels & maps	Form Ref WQ025
	L		Acronym SPZs
	Purpose		
Source Pr	otection Zones have been de	eveloped to define areas in which activ	rities could impact groundwater abstraction.
Users:	Regions + Areas.		
Frequenc	у	Development	License
Routine		None	Licensed
Periodic		Arguing revision	If so, number
Occasiona	illy	Being revised Under development	Free
		Onder development	_
6. Gener	al Assessment		
Media		Function	Risk Assessment
Air		Water Quality	Qualitative
and	. /	Water Resources	Semi-Quantitative
Water	7	Flood Defence	Quantitative /
Waste	*	Fisheries	Criteria 🗸
	*	Rec & Nav	Assessment
Purpose		Conservation	Probabilistic/Determ /
Regulation	1	IPC	Stochastic
Operation	al 🗸	Radioactivity	Risk Assessment
Planning	-	Waste Disposal	Risk Management
Prioritisin	g /	Cont. Land	
_	4		
. Furthe	r Assessment		
Coverage		Туре	System Base
Site Speci	fic 🔽	Procedural	Paper
Catchmen		Mathematical	PC - DOS
Regional		Statistical	PC - Windows
Vational	<del>                                     </del>	Chemical	UNIX/Mainframe
	<u> </u>	Physical	0.60
Cimescale	3(i days- 400days +		to House
rmescare rmescare	<u> </u>	Biological	In-House
CESOIUUUI	1. 25,000	Radioactivity	Third Party /
i. Links i	to Standards, Tarrets and	Databases (Cross-reference)	-
andards	Links to Groundwater Protection Policy	Database	s Data & maps held in regional offices and national digital databases also available.
. Comm	ents		
id Akla atau i			1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
ach site i	ias a Source Evaluation Reg	port which is the paper copy of all the	data collected in definition of the zone. Maps

I. Title Groundwater Vulnerab	lity Maps	Form Ref WQ026
2. Model Purpose		Acronym
Groundwater Vulnerability Maps is regardless of use.	ave been produced to define the vulnera	bility of groundwater in any specific location
Users:		
3. Additional Information	4.0	
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
	Under development	]
4. General Assessment		
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
Land 7	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste.	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	IPC	Stochastic
Operational /	Radioactivity	Risk Assessment
Planning	Waste Disposal	Risk Management
Prioritising	Cont. Land	그
i. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural 🗸	Paper 7
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational /	Chemical	UNIX/Mainframe
<del></del>	Physical	9
imescale	Biological	In-House
Resolution 1 100 000	Radioactivity	Third Party
. Links to Standards, Targets a	nd Databases (Cross-reference)	4
tandards	Database	es Production of Maps relies on SSLRC and
		BGS databases. The maps are available in
<u> </u>		digital form.
. Comments		

I. Title Rapid Risk Assessm	ent Methodology	Form Rel WQ027
2. Model Purpose	,	Acronym
To provide consistent approach	to risk assessment at industrial sites (non IPC	C sites).
		S. 1
Users: Environment Plannir	g and Protection Officers	1
	, U	· ·
3. Additional Information		
	2	
Frequency	Development	License
Routine	None 🗸	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
<b>—</b>	Under development	
I. General Assessment		31
Media	Function	Risk Assessment
Air	Water Quality ✓	Qualitative
and	Water Resources	Semi-Quantitative /
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ 🗸
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
. Further Assessment	, , ,	- 4
Coverage	Туре	System Base
Site Specific	Procedural	Paper 7
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical 🗸	UNIX/Mainframe
<del>'</del>	Physical	
imescale	Biological	In-House
Resolution	Radioactivity	Third Party
. Links to Standards, Target:	s and Databases (Cross-reference)	
tandards	Databases	
,		
. Comments		÷ 148
		*
ollution Prevention Manual, Vo	ol 026, Part I, Chapter 6	
ersion 1.2, 10/97		

I. Title Discl	narge Consent Manua	*		Form Ref WQ028	
2. Model Purpe	ose			Асгопут	
The Discharge C	onsent Manual is a co	illection of Agency's policie	s for the determin	ation of Consents for discharges. The	7
Manual covers ti	ne legal & technical b ual reviews & addition	asies for ensuring the prote	ction of WQ. The	manual is a dynamic document	
_	onal Area Consenting	teams			_
Exter	nal Dischargers			4	
3. Additional Is	rformation		*	*	
Frequency		Development		License	
Routine		None		Licensed	7
Periodic	17.1	Arguing revision	7	If so, number	]
Occasionally		Being revised Under development		Free It is a controlled Document	
4. General Asso	=ssment	Onder development	L	it is a controlled Document	
Media		Function		Risk Assessment	
A in		•	,		_
Air Land	<b>—</b>	Water Quality Water Resources	<del></del>	Qualitative Semi-Quantitative	4
Water		Flood Defence	<del>  </del>	Semi-Quantitative Quantitative	4
Waste	<del>                                     </del>	Fisheries	<del>  </del>	Criteria	4
		Rec & Nav		Assessment	1
Purpose		Conservation		Probabilistic/Determ 🗸	1
Regulation		PIR		Stochastic	1
Operational	7.	Radioactivity		Risk Assessment	]
Planning Prioritising		Waste Policy		Risk Management	]
5. Further Asse	ssment	Land Quality			
		T		Contract Day	
Coverage		Туре		System Base	_
Site Specific	1	Procedural	1	Paper	
Catchment		Mathematical		PC - DOS	4.
Regional National		Statistical	<del></del>	PC - Windows	4
rational	L	Chemical Physical	1	UNIX/Mainframe	٢
Timescale		Biological	1	In-House	7
Resolution		Radioactivity		Third Party	1
5. Links to Star	dards, Targets and	Databases (Cross-referenc	:e)		
Standards EQSs	EC Discourse	Water Quality	Databass   157	A Christian A artises	7
	, EC Directives, trives, RR classification	` '		er Quality Archive	
7. Comments					
Rick access	is not invitate with:	the Manual houses acres	ents themselves	e used to manage the risk associated	7
				nual covers policy, procedures,	
				exporting, registers & IPC.	
					L
Contact Chris	Chubb	Location: E.A WQ	Bristol	Tel: - 710 4314	7
Citris	Ç.1400	LUCATION, JEIN WO	0.000	rei. 1/10 4314	1
	1	1	1		

1. Title LandSim		Form Ref WP001
2. Model Purpose		Acronym LandSim
LandSim allows the assessor to pre	dict the impact of pollutants in a landfill sit	e on the quality of controlled waters
eachate collection systems and pro vaterhole.	del considers leachate chemistry, engineeri cesses acting in the insaturated zone to atte	enuate pollutants before they reach the
Users: Waste and Groundwater	staff (technical support), consultants and	
Industry		ž.
3. Additional Information Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
<u></u>	Under development	
l. General Assessment		
Media	Function	Risk Assessment
Air	W O	
and	Water Quality Water Resources	Qualitative
Water	Flood Defence	Semi-Quantitative Quantitative
Vaste	Fisheries	Quantitative Criteria
	Rec & Nav	
urpose	Conservation	Assessment / Probabilistic/Determ
Regulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
rioritising	Land Quality	
. Further Assessment		
Coverage	Туре	System Base
ite Specific	Procedural	Paper
atchment	Mathematical	PC - DOS
egional	Statistical	PC - Windows
lational	Chemical	UNIX/Mainframe
	Physical	
imescale	Biological	In-House
esolution	Radioactivity	Third Party
. Links to Standards, Targets an	d Databases (Cross-reference)	
tandards Water Quality Critieria,	Databases [7	N/A
Waste Management Ope	•	
(eg head of leachate)		
. Comments	-	7

1	RA FOR WASTE erator and Pollution	n Risk Appraisal for V	Vaste.	Form Ref	WP002	J '
Z. Model Pur	pose			Acronym	OPRA for Waste	]
ecovery opera	ations by providing actors are combined	an indication of an oc	currence of an unde	invironmental risk from signable event and the constand are used to determine	sequences of the	
Jsers: En	vironment Protection	on Officers		7		
				_		
requency	Information	Developm	ent	License		
Routine Periodic Occasionally	<b>/</b>	-	evision sed as part - 🗸	Licensed If so, numb Free	er -	
		Under dev	elopment		-4	
. General A	ssessment					
ledia		Function		Risk Asses	isment	
Air Jand Water Waste	1	Water Qua Water Res Flood Defi Fisheries Rec & Na	ources ence	Qualitative Semi-Qual Quantitativ Criteria Assessmer	ntitative /	Inspec
Purpose Regulation Operational Planning Prioritising	<i>J J</i>	Conservat Prioritisation PIR PIR Radioactiv Remée review On site work Planned Land Qual	rity	Probabilist Stochastic Risk Asses Risk Mana	ssment 🗸	Site sp basis b gave of output
. Further A	ssessment		*			of Age & oper control highlig
Coverage		Туре		System Ba	ise	
ite Specific Catchment Regional Vational	1	Procedura Mathemat Statistical Chemical Physical Biological	ical	Paper PC - DOS Contains procedural elements in lespection methodology In-House		
Resolution		Radioactiv	rity	Third Party	,	1
	going Assessment	and Databases (Cros		es REGIS		7
						j
. Comments					g.	_

1. Title	Flood Defence Managemen	nt System	Form Ref FD00	
2. Model F	urpose		Acronym FDMS	*
The main p	urpose is to identify the ne-	ed for capital/revenue expenditure	e and to determine the priorisation a	nd justification
	All Regions			
				(.)
Frequency	+	Development	License	
Routine		None	Licensed	3
Periodic		Arguing revision	If so, number	
Occasionall	у	Being revised Under development	Free	dele
3. General	Assessment			4
Media		Function	Risk Assessment	
Air		Water Quality	Ouglissius	
Land		Water Resources	Qualitative	
Water	<b>√</b>	s s s	Semi-Quantitative	
Waste		Flood Defence		
A SZIĆ		Fisheries	Criteria	
D		Rec & Nav	Assessment	
Purpose		Conservation	Probabilistic/Dete	rm
Regulation		PIR '	Stochastic	
Operational		Radioactivity -	Risk Assessment	1
Planning	1	Waste Policy	Risk Management	/
Prioritising	1	Land Quality		
4. Further	Assessment	404		
Coverage			5	
Cuverage		Туре	System Base	4.0
Site Specific		Provident of		
Catchment	´		Paper	
Regional		Mathematical	PC - DOS	<u> </u>
-	1	Statistical	PC - Windows	
National		Chemical	UNIX/Mainframe	
		Physical	<sup>3.</sup>	
Timescale		Biological	In-House	1
Resolution		Radioactivity	Third Party -	
5. Links to	Standards, Targets and I	Patabases (Cross-reference)	4	
Standarde [6	tandards of Services, Na	tional Standard Datal	2000	
	or Prioritisation, FDMM	tional Standard Data	04362	
6. Commer	its			
Developed:	n-house. Has a GIS front e			
o eveloped [	ii-iiouse. Has a UIS Ifoni e	IU.		

1. Title Frequency Sim	ulation (of Flood Flows)	Form Ref FD004
2. Model Purpose	3-1	Acronym FRQSIM
FSR is used for estimation only.	of design flows for ungauged catchments. Flows	s are estimated at one point in the catchment
Users: At present it is	nainly used within Thames Region.	
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	. Being revised	Free
<del></del>	Under development	<u></u>
General Assessment		
vledia .	Function	Risk Assessment
Air -	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Vater	Flood Defence	
Vaste	Fisheries	Quantitative Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ /
Regulation	PIR	Stochastic
Operational	<del></del>	Risk Assessment
lanning	Waste Policy	Risk Management
Prioritising	Land Quality	
. Further Assessment		•
Overage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	<b>─</b> ┤ ;;;;;;;;,	PC - DOS
Regional	Statistical /	PC - Windows
Vational	Chemical	UNIX/Mainframe
	Physical	<b>-</b>
Timescale 5-72	hrs Biological	. In-House
Resolution	Radioactivity	Third Party
. Links to Standards, Ta	rgets and Databases (Cross-reference)	
tandards Standards of Se		
Standards of Se	rvice Databas	ies
. Comments		
RQSIM was originally de	veloped by the GLC and has since been extensive	vely modified.

ı

l

ı

Ì

ı

ľ

I

1. Title Rainfall Run-off (on Burrows	Computer)	Form Ref FD005	
2. Model Purpose		Acronym RORB	<u>—</u>
RORB is used for estimation of design the	ows on catchments with some gr	luging.	
		37.6	
Users:			
Frequency	Development	License	
Routine	None	Licensed	
Periodic	Arguing revision	If so, number	
Occasionally	Being revised	Free	
Jecasionally .	Under development	\	
3. General Assessment	Onder development		
, General Assessment	120		
Media	Function	Risk Assessment	
Air	Water Quality	Qualitative	
Land	Water Resources	Semi-Quantitative	
W		<del></del>	
Waste	,	Quantitative	4,
w aste	Fisheries	Criteria	
_	Rec & Nav	Assessment	<i>,</i>
Purpose	Conservation	Probabilistic/Determ 🗸	
Regulation	PIR	Stochastic	
Operational	Radioactivity	Risk Assessment	,
Planning	Waste Policy	Risk Management	
Prioritising	Land Quality		
1. Further Assessment	*	ω.	
. Further Assessment			
Coverage	Туре	System Base	
Site Specific	Procedural	Paper	
Regional	<del> </del> -		
Vational		PC - Windows	
ational	Chemical	UNIX/Mainframe	
	Physical /	l	
Timescale	Biological	In-House	
Resolution	Radioactivity	Third Party	
i. Links to Standards, Targets and Dat	abases (Cross-reference)	,	
Standards of Service		<b>5</b> . <b>6 1</b> .	
taildatus Islandatus of Service	Dataoa	ses River flow data	
. Comments			
CORB is an Australian developed mode preference.	el (Hydrologica are the UK ago	ents) FRQSIM or RIBAMAN tend to be	used

I. Title Regional Flow-Foreca	sting System	Form Ref FD006
2. Model Purpose		Acronym
	system relies on output from one of three model) to forecast flood events in river catching	
Users:	· · · · · · · · · · · · · · · · · · ·	
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
	Under development	
3. General Assessment		_
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
<u> </u>	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ /
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Policy	Risk Management
Prioritising	Land Quality	
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural Procedural	Paper
Catchment	Mathematical /	PC - DOS
Regional	Statistical	PC - Windows
National	Chemical	UNIX/Mainframe
<del></del>	Physical	-
Timescale 15m to 12h sheed	Biological	In-House
Resolution 2km grid	Radioactivity	Third Party
5. Links to Standards, Targets :	and Databases (Cross-reference)	
Standards	Database	Relies on output from Isolated Even
<u> </u>		Model/ Thames Catchment Model/
5. Comments	•	

ALMON and it models flow, water quality staff.  Development  None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	License  Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
Pevelopment  None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	License  Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
Development  None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
Development  None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
None Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	Licensed If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
Arguing revision Being revised Under development  Function  Water Quality Water Resources Flood Defence Fisheries	If so, number Free  Risk Assessment  Qualitative Semi-Quantitative Quantitative
Function  Water Quality Water Resources Flood Defence Fisheries	Risk Assessment  Qualitative Somi-Quantitative Quantitative
Function  Water Quality Water Resources Flood Defence Fisheries	Risk Assessment  Qualitative Somi-Quantitative Quantitative
Function  Water Quality Water Resources Flood Defence Fisheries	Qualitative Semi-Quantitative Quantitative
Function  Water Quality Water Resources Flood Defence Fisheries	Qualitative Semi-Quantitative Quantitative
Water Quality Water Resources Flood Defence Fisheries	Qualitative Semi-Quantitative Quantitative
Water Resources Flood Defence Fisheries	Semi-Quantitative Quantitative
Water Resources Flood Defence Fisheries	Semi-Quantitative Quantitative
Flood Defence Fisheries	Quantitative
Fisheries	· ————————————————————————————————————
	Criteria
Rec & Nav I	Assessment
	Probabilistic/Deter
	Stochastic
I	Risk Assessment
	Risk Management
· ·	120
<b></b>	0 D
Туре	System Base
Procedural	Paper
	PC - DOS
	DC Windows
a, <b>├</b> ~~~	UNIX/Mainframe
, <del></del>	Old Fold for Figure 1
	In-House
	Third Party
-	induraty /
pases (Cross-reference)	
Databases	
	-3-
ous other models. It is used routinely by	y flood defence for model flow and
ff	
	Tel: 725 5752
	Rec & Nav. Conservation PIR Radioactivity Waste Policy Land Quality  Type  Procedural Mathematical Statistical Chemical Physical Biological Radioactivity  pases (Cross-reference)  Databases

. Title Hydro	logical Engineering C	entre 2	Form Ref FD008
Z. Model Purpos	e		Acronym HEC 2
EC 2 is a backw	ater model for ascerta	ining water levels along a reach of riv	er or open channel for a steady flow rate.
Users:			]
Frequency		Development	License
, -		` —————	1 County
Routine		None	Licensed
Periodic		Arguing revision	If so, number
Decasionally		Being revised	Free
3. General Asses	*	Under development	
1.4	3mem		
Vledia		Function	Risk Assessment
<b>A</b> ir		Water Quality	Qualitative
and	<del></del>	Water Resources	Semi-Quantitative
Water		Flood Defence	Quantitative
Waste	<del></del>	Fisheries	Criteria
M 72(C			- <del></del>
_		Rec & Nav	Assessment
Purpose		Conservation	Probabilistic/Determ /
Regulation	<b>✓</b>	PIR	Stochastic
Operational	7	Radioactivity	Risk Assessment
Planning		Waste Policy	Risk Management
Prioritising		Land Quality	]
4. Further Asses	sment		
Coverage		Туре	System Base
Site Specific		Procedural	Paper
Catchment			
	<del>  </del>	Statistical Statistical	PC - BOS PC - Windows
Regional	<b>——</b>		UNIX/Mainframe
National		Chemical	UNIXIMAIIIITAIRE
		Physical	٠
Timescale	Steady state	Biological	In-House
Resolution	50-200mm	Radioactivity	Third Party
5. Links to Stan	dards, Targets and E	Patabases (Cross-reference)	
Standards		Database	
		Datapase	`L
6. Comments			
HEC 2 was days	loned originally by	he IIS Coms of Engineers and coul	ld be used more formally in risk assessmen
	used this way at prese		35 252 353 353 353 353

Sers:   All Regions	. Title Backwater Programs (Ge	neric)	Form Rel FD009
Development   License	2. Model Purpose		Acronym
Development   License	ackwater programs are used to esti-	nate water levels given in-channel geo	metry and roughness and a steady flow.
Development  License  Outline Friodic Coasionally Being revised Under development  It water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Stochastic Radioactivity Raning Water Policy Land Quality Risk Management  Further Assessment  Type  Ty			
None Arguing revision Being revised Under development	Jsers: All Regions		7
Periodic Decasionally Being revision Being revised Under development Free Under development	requency	Development	License
Decasionally  Being revised Under development  Risk Assessment  Purction  Risk Assessment  Qualitative Semi-Quantitative Quantitative Quantitative Quantitative Criteria Assessment Assessment Purpose Regulation PIR Poperational PIR Poperational PIR Poperational PIR Poperational Panning Waste Policy Prointising  Decational Procedural Procedural Mathematical Procedural Mathematical Procedural Mathematical Procedural Procedural Mathematical Procedural P	Routine	None	Licensed
Decasionally  Being revised Under development  Brisk Assessment  Brincheria  Brich Brisk Assessment  Brook Brisk Assessment  Brisk Asse	Periodic	Arguing revision	If so, number
Media Function Risk Assessment  Air  Air  Air  And  Water Quality  Water Resources  Water  Flood Defence  Fisheries  Rec & Nav  Conservation  PIR  Deparational  Panning  Waste Policy  Land Quality  Risk Assessment  Panning  Froitising  Assessment  Type  System Base  Site Specific  Catchment  Catchment  Regional  National  Procedural  Mathematical  Poper Water  Mathematical  Poper Waste Statistical  Poper Waste Specific  Catchment  Procedural  Mathematical  Poper Windows  UNIX/Mainframe  Physical  Physical  Physical  Physical  Pimescale  Resolution  Risk Assessment  Fine-Scale  Biological  Radioactivity  In-House  Third Party  Attinks to Standards, Targets and Databases (Cross-reference)	Occasionally	Being revised	
Air  Air  Air  Air  Water Quality  Water Resources  Water  Flood Defence  Fisheries  Resources  Regulation  PIR  Purpose  Regulation  PIR  Planning  Waste Policy  Land Quality  Waste Probabilistic/Determ  Vaste Policy  Land Quality  Radioactivity  Radioactivity  Risk Assessment  Vaste Policy  Land Quality  Risk Assessment  Vaste Probabilistic/Determ  Vaste Policy  Risk Assessment  Vaste Policy  Risk Assessment  Vaste Policy  Risk Management  Vaste Policy  Risk			J
Water Quality  Water Resources  Vaste  Vaste  Flood Defence  Flood Defence  Fisheries  Rec & Nav  Conservation  PIR  Stochastic  Radioactivity  Vaste Policy  Land Quality  Further Assessment  Coverage  Ite Specific  Statistical  Assessment  Mathematical  Statistical  Chemical  Physical  Imescale  Esolution  Water Quality  Qualitative  Semi-Quantitative  V Criteria  Assessment  V Criteria  Assessment  V Probabilistic/Determ  V Stochastic  Risk Assessment  Risk Management  V Risk Management  V Roughland  Radioactivity  Risk Management  V PC - DOS  V PC - Windows  UNIX/Mainframe  Physical  Imescale  Biological  Radioactivity  Third Party  V  Lands to Standards, Targets and Databases (Cross-reference)  ttandards Standards of Service  Databases	. General Assessment	456	
Water Valter V Flood Defence V Criteria Assessment V Conservation PIR Stochastic Value Value V	vledia	Function	Risk Assessment
Water Waste Flood Defence Constitutive Flood Defence Fisheries Rec & Nav Conservation PIR Stochastic Risk Assessment Alanning Waste Policy Land Quality Risk Management Prorectional Assessment Assessment Alanning Alannin	Air —	Water Quality	Qualitative
Vaste   Flood Defence   Quantitative   Zeriteria   Assessment   Zeriteria   Zerite	and		
Waste Fisheries Rec & Nav Assessment Probabilistic/Determ Regulation PIR Stochastic Risk Assessment Risk Assessment Risk Assessment Risk Management Risk Manag	Vater		
Rec & Nav Conservation PIR Probabilistic/Determ V Stochastic Risk Assessment V Radioactivity Risk Management V Risk Mana			
tegulation PIR Stochastic Risk Assessment Radioactivity Risk Management Risk M		Rec & Nav	
Regulation PIR Radioactivity Risk Assessment Risk Assessment Risk Assessment Risk Management R	urpose .	Conservation	
Prioritising	· · · · · · · · · · · · · · · · · · ·	PIR	
Planning	perational	Radioactivity	Risk Assessment
Coverage Type System Base  Site Specific Procedural Paper Catchment Mathematical PC - DOS Regional Statistical PC - Windows Vational Chemical UNIX/Mainframe Physical UNIX/Mainframe Physical In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards Standards of Service Databases	· · · · · · · · · · · · · · · · · · ·	Waste Policy	
Type  System Base  ite Specific  Procedural  Paper  Satchment  Mathematical  PC - DOS  PC - Windows  Interescale  Physical  Physical  Physical  Physical  Physical  Physical  In-House  Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards  Standards of Service  Databases	rioritising	Land Quality	
Site Specific Procedural Paper PC - DOS PC - DOS PC - DOS PC - Windows UNIX/Mainframe Physical Physica	. Further Assessment		
Site Specific Procedural Paper PC - DOS PC - DOS PC - Windows UNIX/Mainframe Physical PC - DOS PC - Windows UNIX/Mainframe Physical Physical Physical PC - Windows UNIX/Mainframe Physical Physical Physical Physical PC - DOS PC - Windows UNIX/Mainframe Physical Phys	Coverage	Туре	
Tatchment  Legional  Statistical  Authority  Authority  Statistical  Chemical  Physical  Physical  Physical  Biological  Radioactivity  Links to Standards, Targets and Databases (Cross-reference)  Statistical  PC - DOS  PC - Windows  UNIX/Mainframe  In-House  Third Party  Third Party  Databases	ite Specific	Percedual	
Statistical PC - Windows  Jational Chemical UNIX/Mainframe  Physical In-House Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Standards of Service Databases			
Actional Chemical Physical In-House In-House Physical Physical In-House In-	1 _ 🗸		
Physical Biological Esolution  Physical Biological Radioactivity  Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards  Standards of Service  Databases	- 6 1		
Emescale Biological In-House American Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Standards of Service Databases	ـــــــا		-
Links to Standards, Targets and Databases (Cross-reference)  Standards Standards of Service  Databases	imescale		In-House
tandards Standards of Service Databases	esolution		Third Party
tandards Standards of Service Databases	Links to Standards, Targets and	Databases (Cross-reference)	
. Comments	tandards Standards of Service	Database	SS
· ·	. Comments		
<u> </u>			
ackwater programs are used in most Regions and exist in many different forms.	ackwater programs are used in most	Regions and exist in many different for	orms.

1. Title MIKE - 2 Dimensi	onal and I Layered	Form Ref FD010
2. Model Purpose		Acronym MIKE21
MIKE21 is a comprehensive r phenomena in lakes, estuaries	nodelling system for 2D free surface flows an , bays and coastal areas.	d is applicable to hydraulic and related
Users:		
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
3. General Assessment	Under development	
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
<del></del>	Rec & Nav	Assessment ✓
Purpose	Conservation	Probabilistic/Determ /
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning Prioritising ✓	Waste Policy Land Quality	Risk Management
1. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	Paper
		PC - DOS
Regional	Statistical /	PC - Windows
National	Chemical /	UNIX/Mainframe
	Physical	<b>-</b>
Timescale	Biological	In-House
Resolution	Radioactivity	Third Party
5. Links to Standards, Targ	ets and Databases (Cross-reference)	
Standards	Databas	cs
	+	
6. Comments		
	<del></del>	
	which includes advection/dispersion, water of modelling. Supported in the UK by WS Atlanta	quality, eutrophication, heavy metals, sedimen

ı

ľ

I

ï

. Title NAM (Hydrological M	(odel)	Form Ref FD011
	<u> </u>	
Model Purpose	1	Acronym NAM
		ise of the hydrological cycle. It is based on
hysical and semi empirical form	ilations.	
sers:		
1		
requency	Development	License
outine	None	Licensed
eriodic	Arguing revision	If so, number
ccasionally	Being revised	Free
	Under development	
General Assessment		<del></del>
ledia	Function	Risk Assessment
ir	Water Quality	Qualitative
		Semi-Quantitative
and /ater	Water Resources Flood Defence	Quantitative
/aste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
anning	Waste Policy	Risk Management
rioritising	Land Quality	- Ison management
Further Assessment		
overage	Туре	System Base
te Specific	Procedural	Paper
		PC - DOS
egional		┥ <u></u>
ational	Statistical	PC - Windows UNIX/Mainframe
	(1.0)	O N 170 Maintaine
mescale	Physical Biological	In-House
esolution	Radioactivity	Third Party
Links to Standards Tometer	and Databases (Cross-reference)	**
andards	Database	es
<u> </u>		
Comments		
AM includes snow storage and	are storage lower zone storage and are	oundwater storage. DHI software supported in
e UK by WS Atkins.	ace storage, tower zone storage, and gro	and water storage. Dea some as supported in

\_

	casting Rain Optimised us inced Radar and Satellite t	ing New Techniques of Interactively Data	Form Ref FD012
2. Model Purp	ose		Acronym FRONTIERS
FRONTIERS is	a model that provides hig	h-resolution quantitative rainfall forecas	ts for flow prediction.
Users:			7
C3613.			
Frequency	4.	Development	License
Routine		None	Licensed
Periodic	Q.	Arguing revision	If so, number
Occasionally		Being revised	Free
•	1	Under development	
3. General Ass	essment	<u></u>	
Media		Function	Risk Assessment
Air		Water Quality	Qualitative
Land	<u> </u>	Water Resources	Semi-Quantitative
Water	<del></del>	Flood Defence	Quantitative
Waste	<del></del>	Fisheries	Criteria
** 4300		Rec & Nav	Assessment
Purpose		Conservation	Probabilistic/Determ /
Regulation		PIR	Stochastic
Operational	<del></del>	Radioactivity	Risk Assessment
Planning	<del>  </del>	Waste Policy	Risk Management
Prioritising		Land Quality	
4. Further Ass	essment		t a
Coverage		Туре	System Base
Site Specific		Procedural	Paper
Catchment	<del> </del>	Mathematical /	PC - DOS
Regional	-	Statistical	PC - Windows
National	-	Chemical	UNIX/Mainframe
		Physical	-
Timescale	50m (up to 6 h ahead)	Biological	In-House
Resolution	5km grid	Radioactivity	Third Party
5. Links to Sta	ndards, Targets and Dat	abases (Cross-reference)	
Standards (	<del></del>	P	es Dependent on radar data from Chenie
Junioai US		Database	radar.
6. Comments			
System being de	veloped further at present	0,0 0,0	
			i

Title Local Rainfall Forecast	ing System	Form Ref FD013
Model Purpose		Acronym
	stem is an advection model that mode	els the speed and direction of rainfall and can
recast up to two hours ahead.		
sers:		
L		
requency	Development	License
outine	None	Licensed
eriodic	Arguing revision	If so, number
ccasionally	Being revised	Free
	Under development	, 14.
General Assessment		
ledia ·	Function	Risk Assessment
ir	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
/ater		Quantitative
/aste	Fisheries	Criteria
	Rec & Nav	Assessment
uгроse	Conservation	Probabilistic/Determ /
egulation	PIR	Stochastic
perational	Radioactivity	Risk Assessment
lanning	Waste Policy	Risk Management
rioritising	Land Quality	
Further Assessment		*
overage	Туре	System Base
ite Specific	Procedural	Paper
atchment		PC - DOS PC - Windows
egional	Statistical Chemical	UNIX/Mainframe
ational		
imescale	Biological	In-House
esolution 2km grid	Radioactivity	Third Party
Links to Standards, Targets a	and Databases (Cross-reference)	<del></del>
		8
tandards	Date	abases Dependent on radar data from Chenies radar.
. Comments		
. <i></i>		-r
he Local Rainfall Radar System	was originally developed by the Insti	tute of Hydrology.

. Title Generating Advan Land-surface Floo	ced Non-Casts for Deployment in Operational d-Forecasting	Form Ref FD014
. Model Purpose		Acronym GANDALF
ANDALF is an operational	thunderstorm warning procedure for use with	river flood forecasting systems.
sers:		
requency	Development	License
outine	None	Licensed
eriodic .	Arguing revision	If so, number
ccasionally	Being revised	Free
, <u> </u>	Under development	_
. General Assessment		_
1edia	Function	Risk Assessment
ir	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
/ater	Flood Defence	Quantitative
Vaste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ /
egulation	PIR	Stochastic
perational	Radioactivity .	Risk Assessment
lanning	Waste Policy	Risk Management
rioritising	Land Quality	
Further Assessment		
overage	Type	System Base
ite Specific	Procedural	Paper
atchment	. Mathematical	PC - DOS
egional	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe
	Physical	
imescale 5mins-		In-House
esolution 2km gr	d Radioactivity	Third Party
Links to Standards, Targ	ets and Databases (Cross-reference)	
tandards	Databas	ies
Comments		*
		<del></del>

Title Simple Practical A Risk Assessment M	application of Collective Experience (Rapid ethodology)	Form Ref FD015
Model Purpose	•	Acronym SPACE
ACE is a technique for asses	sing risk to flood defences, including the risk of fa	ailure of such flood defences.
	3	
ers: Operational staff		*
equency	Development	License
utine	None	Licensed
riodic	Arguing revision	If so, number
casionally	Being revised	Free
·	Under development	
General Assessment		
edia	Function	Risk*Assessment
	Water Quality	Qualitative
nd 🗸	Water Resources	Semi-Quantitative
iter /	Flood Defence	Quantitative
ste	Fisheries	Criteria
	Rec & Nav	Assessment
rpose	Conservation	Probabilistic/Determ
gulation	PIR	Stochastic
erational 🗸	Radioactivity	Risk Assessment
nning	Waste Policy	Risk Management
oritising	Land Quality	
Further Assessment		
verage	Туре	System Base
Specific /	Procedural	Paper
chment	Mathematical	PC - DOS
gional	Statistical	PC - Windows
ional	Chemical	UNIX/Mainframe
	Physical 🗸	
nescale	Biological	In-House
olution	Radioactivity	Third Party
Links to Standards, Target	s and Databases (Cross-reference)	*
ndards Standards of Service	Databases Con	npleted questionnaires have been
	ente	ered into a database.
Comments		,

. Title Risk Asse	ssment for Sea an	d Tidal Defences	Form RefFD016
. Model Purpose			Acronym
his methodology ha	s heen déveloped	to provide a detailed quantitative risk	ossessment procedure including
			dology is designed to compliment the Space
lethodology and act			
sers: Staff at No	SBA OA		1
3613. Statt at 140	LNAUA		
requency		Development	License
outine		None	Licensed
riodic	<del></del>	Arguing revision	If so, number
ccasionally	<del> </del>	Being revised	Free
	<b></b>	Under development	
General Assessme	ent	<del></del>	
Iedia	•	Function	Risk Assessment
ir		Water Quality	Qualitativa
u and		Water Resources	Qualitative Semi-Quantitative
ater	<del></del>	Flood Defence	Quantitative
aste	<b></b>	Fisheries	Criteria
4510		Rec & Nav	Assessment
urpose		Conservation	Probabilistic/Determ 🗸
egulation		PIR	Stochastic
perational		Radioactivity	Risk Assessment
anning	7	Waste Policy	Risk Management
rioritising	<b>/</b>	Land Quality	
Further Assessme	ent		
		_	
overage		Туре	System Base
te Specific		Procedural	Paper 🗸
atchment	7	Mathematical 🗸	PC - DOS
egional		Statistical	PC - Windows
ational		Chemical	UNIX/Mainframe
		Physical	
mescale		Biological	In-House
esolution		Radioactivity	Third Party
Links to Standard	is, Targets and [	Databases (Cross-reference)	*
andards Standards	of Service	Databases	
L			
Comments			
			320

ľ

1. Title Indicative Floodplain	n Maps	Form Ref FD017
2. Model Purpose		Acronym [FM
Show areas within which the Ag 30/92.	ency carries out flood defence function (co	astal and fluvial) in accordance with Circular
Users:		7
Frequency	Development	License
Routine Periodic Occasionally	None Arguing revision Being revised Under development	Licensed  If so, number  Free
3. General Assessment,	,	
Media	Function	Risk Assessment
Air Land Water  Waste	Water Quality Water Resources Flood Defence Fisheries Rec & Nav	Qualitative Semi-Quantitative Quantitative Criteria Assessment
Purpose Regulation Operational Planning Prioritising	Conservation PIR Radioactivity Waste Policy Land Quality	Probabilistic/Determ  Stochastic  Risk Assessment  Risk Management
. Further Assessment		
Coverage	Туре	System Base
Site Specific Catchment Regional Vational Cimescale Resolution	Procedural  Mathematical  Statistical  Chemical  Physical  Biological  Radioactivity	Paper PC - DOS PC - Windows UNIX/Mainframe  In-House Third Party
	and Databases (Cross-reference)	
itandards		es IoH Flooded Areas database.
. Comments		
haded indicative flood - prone	areas shown on 1:10000 map scale.	

1. Title Flood Estimation Hand	book	Form Ref FD020
2. Nodel Purpose		Acronym FEH
c. (Moder i di pose		Acronym FER
FEH is used for estimation of designment	n flows for ungauged sites. It is a developm	nent of the flood standing report.
Users:		
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
	Under development	×.
3. General Assessment		
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
and	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational	Radioactivity	Risk Assessment
Planning Prioritising	Waste Policy Land Quality	Risk Management
Tiomismg	Land Quanty	
l. Further Assessment	3e -	
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
Timescale Timescale	Physical Piological	In-House
Resolution	Biological Radioactivity	Third Party
	reasions are in the second sec	1
5. Links to Standards, Targets a	nd Databases (Cross-reference)	
Standards of Service	Databases	
<u> </u>		
. Comments	- 2	
1.0		

ľ

Title Database of Erosion	Deposition and Flooding	Form Ref FD021	
2. Model Purpose	,	Асголут	
Database of 1500 reported floor planning guidance.	ding and erosion events in Britain from 17	70 to present. Developed by DETR to into	)rm
Users: I. Meadowcroft			
	4		
Frequency	Development	4 License	
Routine	None	Licensed	
Periodic	Arguing revision	If so, number	$\neg$
Occasionally 🗸 :	Being revised	Free	/
	Under development		
3. General Assessment			
Media	Function	Risk Assessment	
	* * *	<b>—</b>	
Air and	Water Quality Water Resources		
Land ✓ Water ✓	Flood Defence	Semi-Quantitative Quantitative	_
Vaste	Fisheries	Criteria	<del>'</del> ——
	Rec & Nav		/
Purpose	Conservation	Probabilistic/Determ	
Regulation	7 PIR	Stochastic	
Operational	Radioactivity	Risk Assessment	7
Planning	Waste Policy	Risk Management	$\neg$
Prioritising	Land Quality		
. Further Assessment			
Coverage	Туре	System Base	
Site Specific	Procedural	Paper	<del></del>
Catchment	Mathematical		
tegional	Statistical	PC - Windows	
Vational /	Chemical	UNIX/Mainframe	
	Physical	_	
imescale	Biological	In-House	
esolution	. Radioactivity	Third Party	
. Links to Standards, Target	s and Databases (Cross-reference)		
tandards	- Paraba		
· ·	Databas	ices	
. Comments	- 4		
	*		
formation on location, course	severity		
1.0			

Environment Agency	t Tools: Part I - Models and Procedure	
. Title River Habitat Surv	ey	Form Ref CO001
. Model Purpose	,	Acronym RHS
To determine river	habitat quality in the context of river type a	and level of physical modification.
	•	
Agency Conservations.  defence, water resources.	ion Staff: LEAPS planners, fisheries, flood ources, external environmental	*
. Additional Information		
requency	Development	License
outine /	None Arguing revision	Licensed
ccasionally	Being revised	If so, number Free
General Assessment	Under development	4.
edia	Function	Risk Assessment
ir	Water Quality	Qualitative
ind 🗸	Water Resources	Semi-Quantitative
ater /	Flood Defence	Quantitative
aste	Fisheries	Criteria 🗸
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ
egulation	PIR	Stochastic
perational /	Radioactivity	Risk Assessment
anning 🗸	Waste Policy	Risk Management
ioritising	Land Quality	×
Further Assessment		
overage	Туре	System Base
te Specific	Procedural	Paper
ntchment	Mathematical	PC · DOS
gional	Statistical	PC - Windows
itional	Chemical	
		UNIX/Mainframe
nescale	Physical /	2
solution	Biological Radioactivity	In-House / Third Party
Links to Standards, Target	s and Databases (Cross-reference)	
andards	Databases R	HS database in Microsoft access.
L		
Comments		
A national database	exists, as well as individual regional datase	ts. RHS is now available through IS.
Further refinement v	will be made to the method. There is a RHS t	user group.
ntact Marc Naura	Location: Warrington, NW	Tel: 721 2454

Environment Agency	Tacks, Bowt I. Madals and Proceeds	
	nent Tools: Part 1 - Models and Procedu	
1. Title River Corridor	Survey	Form Ref CO002
2. Model Purpose	×4:	Acronym RCS
To provide info	rmation on the plant communities and land use	along watercourses.
Users: Conservation, I environmental of	flood defence, water resources and external organisations.	]
3. Additional Information	. 19	- v
Frequency	Development	License
Routine	None 7	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised Under development	Free
4. General Assessment	-	_
Media	Function	Risk Assessment
Air —	Water Quality	Qualitative
Land	<del></del> -	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
,	Rec & Nav	Assessment
Purpose	Conservation	Probabilistic/Determ
Regulation	PIR	Stochastic
Operational -		Risk Assessment
Planning		Risk Management
Prioritising	Land Quality	_
5. Further Assessment	al.	w.
Coverage	Туре	System Base
Site Specific	Procedural	Paper
· · · · · · · · · · · · · · · · · · ·	Mathematical	PC - DOS
Regional	Statistical	PC - Windows
National	Chemical	UNIX/Mainframe
0,	Physical	
Timescale	Biological 🗸	In-House
Resolution	Radioactivity	Third Party
6. Links to Standards, Ta	argets and Databases (Cross-reference)	
Standards	Databases	
7. Comments		
Regional usage	varies - Thames carry out RCS on a rolling pro	ogramme basis across all catchments.
Contact Fran Bayley	Location: Frimley	Tel: 725 4501

ı

To provide information on landscape character of river corridors.	. Title Landscape Assessme	ent	Form Ref CO003
To provide information on landscape character of river corridors.    Joseph			
Additional Information   Countries   Conservation	. Model Purpose	44	Acronym
Additional Information Prequency    Development	To provide informat	ion on landscape character of river co	rridors.
Additional Information Frequency  Soutine Sout			
Development   License	conservation	et g	
Routine	. Additional Information		
Arguing revision Being revised Under development  General Assessment  Media Function  Water Quality Water Resources Water Flood Defence Fisheries Rec & Nav Conservation Pertoinal Panning Fire Parpose Regulation Pertoinal Planning Fisheries Radioactivity Rash Assessment  Water Assessment  Type System Base  Site Specific Cachment Regional Rational Physical Physical Physical Physical Biological Radioactivity Risk to Standards, Targets and Databases (Cross-reference)  Standards  Databases  Databases  T. Comments	Frequency	Development	License
Decasionally  Being revised Under development  Media  Function  Risk Assessment  Water Quality Water Resources Water Waste Flood Defence Fisheries Regulation PIR Departional Planning Water Policy Land Quality Risk Management  Coverage  Type  System Base  Site Specific And Mathematical Regional National Physical Physical Physical Physical Phirad Physical Ph	Routine	None /	Licensed
Decasionally   Being revised   Under development	Periodic	Arguing revision	If so, number
Under development			
Air  Air  Water Quality Water Resources Water Waste Waste Fisheries Rec & Nav Conservation PIR Operational Planning Water Policy Prioritising Water Procedural Mathematical Regional National Procedural Mathematical Physical Physical Physical Physical Physical Physical Biological Radioactivity Risk Assessment PC - DOS PC - Windows WINIX/Mainframe Physical P			
Air Land Water Resources Flood Defence Waste Fisheries Rec & Nav Conservation Purpose Regulation Operational Planning Planning Prioritising  Type  System Base  Site Specific Catchment Regional National Chemical Phological Resolution Prioritis to Standards, Targets and Databases (Cross-reference)  Standards  Databases  Qualitative Criteria Assessment Probabilistic/Determ Probabilistic/Determ Probabilistic/Determ Resource Resolution Probabilistic/Determ Resource Rasessment Probabilistic/Determ Resource Resolution Probabilisti	. General Assessment		<u> </u>
Water Water Plood Defence Pisheries Pisheries Purpose Regulation PIR Stochastic Planning Waste Policy Land Quality Profesional Radioactivity Risk Management Profesional Pisheries Purpose Regulation PIR Stochastic Risk Management Profesional Radioactivity Risk Management Profesional Pisheries Profesional Radioactivity Risk Management Profesional Pisheries Profesional Pisheries Profesional Pisheries Procedural Paper Paper Paper Profesional Profesio	vledia .	Function	Risk Assessment
Water Water Flood Defence Fisheries Rec & Nav Conservation PIR Stochastic Risk Assessment Regulation PIR Stochastic Risk Assessment Risk Assessment Risk Management Provided Piroritising Provided Provided Piroritising Provided Piroritising Provided Piroritising Provided Provided Piroritising Provided Piroritising Provided Provided Piroritising Provided Piroritising Provided Piroritising Provided Provided Piroritising Provided Prov	Air .	Water Quality	Oualitative /
Waste Flood Defence (			
Waste   Fisheries   Criteria   Assessment   Purpose   Conservation   Probabilistic/Determ   Purpose   Regulation   PIR   Stochastic   Planning   Waste Policy   Risk Assessment   Provide Prioritising   Type   System Base    Site Specific   Procedural   Paper   Catchment   Mathematical   PC - DOS   Pregional   Statistical   PC - Windows   National   Physical   Ph			
Rec & Nav Conservation Purpose Regulation PIR Radioactivity Planning Prioritising  Stochastic Risk Assessment Risk Management Risk Management  Stember Assessment Risk Management  System Base  Type System Base  Site Specific Anthematical Regional National Chemical Physical Physical Biological Resolution Radioactivity Risk Management  In-House Third Party  Standards  Databases  Databases  Databases			
Purpose Regulation PIR Poperational Planning Providential Planning Providential Providential Planning Providential Planning Providential Planning Providential Planning Providential Planning Providential Providenti	waste		
Regulation PIR Radioactivity Risk Assessment Risk Management Planning Waste Policy Land Quality  5. Further Assessment  Coverage Type System Base  Site Specific Procedural Paper PC - DOS Regional Statistical PC - Windows UNIX/Mainframe Physical Biological Physical Biological Resolution Radioactivity Third Party  Standards Databases  Comments			
Departional Departional Departional Planning Departional Planning Departional Depart Depar		. ————————————————————————————————————	
Planning			
Prioritising  Land Quality  5. Further Assessment  Coverage  Type  System Base  Site Specific  Athermatical  Catchment  Mathematical  PC - DOS  Regional  National  Chemical  Physical  Physical  Physical  Physical  Physical  Radioactivity  Timescale  Resolution  Chemical  Chem	·		
Type  System Base  Site Specific  Another Assessment  Site Specific  Catchment  Regional  National  Chemical  Physical  Physical  Physical  Biological  Resolution  Radioactivity  Mathematical  PC - DOS  PC - Windows  UNIX/Mainframe  Physical  Finescale  Resolution  Radioactivity  Third Party  Standards  Databases  Tomments	<u> </u>	Waste Policy	Risk Management
Type  System Base  Site Specific  Procedural  Mathematical  Regional  National  Chemical  Physical  Physical  Biological  Resolution  Resolution  Standards  Databases  Timestand  Chemical  Physical  Databases  Databases  Third Party	Prioritising	Land Quality	
Site Specific  Catchment  Regional  National  Chemical  Physical  Physical  Biological  Resolution  Chinks to Standards, Targets and Databases (Cross-reference)  Standards  Paper  PC - DOS  PC - Windows  UNIX/Mainframe  In-House  Third Party  Third Party  Databases	5. Further Assessment		. V
Catchment Regional Regional National Chemical Physical Physical Biological Resolution Radioactivity Third Party  Standards Databases  Databases  7. Comments	Coverage	Туре	System Base
Catchment Regional Regional National Chemical Physical Physical Biological Resolution Radioactivity Third Party  Standards Databases  Databases  7. Comments	Site Specific	Procedural	Paner
Regional National Statistical Chemical Physical Physical Biological Resolution Radioactivity Third Party  Standards Databases  Databases  7. Comments	·		
National  Chemical Physical Physical Biological Resolution  Chemical Physical Biological Radioactivity  In-House Third Party  And Party  Third Party			
Physical Biological Resolution Radioactivity Third Party  6. Links to Standards, Targets and Databases (Cross-reference)  Standards Databases  7. Comments			
Resolution  Biological Radioactivity  Third Party  6. Links to Standards, Targets and Databases (Cross-reference)  Standards  Databases  7. Comments	National .		
Resolution  Radioactivity  Third Party  6. Links to Standards, Targets and Databases (Cross-reference)  Standards  Databases  7. Comments		111/5.00.	
Standards Databases (Cross-reference)  7. Comments		D101051041	
Standards Databases  7. Comments	Resolution	Radioactivity	Third Party
7. Comments	i. Links to Standards, Target	s and Databases (Cross-reference)	
	Standards	Datab	ases
Use of landscape assessment varies between regions. Thames probably commission the most.	7. Comments		~
	<u> </u>	sessment varies between regions. Tha	mes probably commission the most.
	Use of landscape as:	enantication (177 ten) contraction (1991-1991)	1

•

Environ	nent Agency		
		or i neat Medale and near	
Register	of Kisk Assessment	Tools: Part I - Models and Procedures	,
		<u> </u>	
1. Title	Habitats Directive F	Review	Form Ref CO004
	L		
2. Model	Purpose		Acronym
•	To seview all some	nts / activities affecting Habitats and Birds E	Standillo pitos
	to textem all course	his / activities affecting rapitals and Birds C	Arective sites.
	<u> </u>		
• •	Sali d		
Users:	All functions and E	nglish Nature	
	L		
3. Additio	onal Information		
Frequenc	y	Development	License
Routine	· · ·	None	Licensed
Periodic	<u> </u>	Arguing revision	If so, number
Occasiona	illy	Being revised	Free
	····/ L	Under development	1100
	al Assessment	Onder development	
4. Genera	II Assessment		
Media		Function	Risk Assessment
Air		Water Quality ✓	Qualitative
Land	7	Water Resources	Semi-Quantitative
Water	7	Flood Defence	Quantitative
Waste	7	Fisheries	Criteria
	. <b>L</b>	Rec & Nav	Assessment
Purpose		Conservation	Probabilistic/Determ
Regulation		PIR	Stochastic
Operationa			
•	d1	11001000111111	
Planning		Waste Policy	Risk Management
Prioritising	g	Land Quality	
5. Furthe	r Assessment		
Coverage	*	Туре	System Base
		••	•
Site Specif	fic	Procedural	Paper
Catchment		Mathematical	PC - DOS
Regional		Statistical	PC - Windows
National	<del></del>	Chemical	UNIX/Mainframe
National			UNIXIMITAME
<b>.</b>	<del>,</del>	Physical	
Timescale	<u> </u>	Biological	In-House
Resolution		Radioactivity	Third Party
	<del>_</del>		
6. Links t	to Standards, Target	s and Databases (Cross-reference)	
	<b>3</b> .	·	
Standards		Databases	
	[		
7. Comm	ents		
Comin	*****		
	170 to 100 to 10		
	i dis is a national "n	nust - do" to comply with European legislation	on.
	L		
Contact	Pam Nolan	Location: Homebased	Tel: 01925 652 798
	1		i i

£,

Environment Agency		1.0
Register of Risk Assessment Tools:	Part I - Models and Procedures	4
1. Title Planning applications screen	ing process	Form Ref CO005
2. Model Purpose		Acronym
To prioritise planning applic	ations for consultation with conservation st	taff.
Users: Conservation and planning s	taif	
3. Additional Information		
Frequency	Development	License
Routine Periodic Occasionally	None Arguing revision Being revised Under development	Licensed If so, number Free
4. General Assessment	- 4.	
Media	Function	Risk Assessment
Air Land Water Waste	Water Quality Water Resources Flood Defence Fisheries Rec & Nav	Qualitative Semi-Quantitative Quantitative Criteria Assessment
Purpose Regulation Operational Ptanning Prioritising	Conservation PIR Radioactivity Waste Policy Land Quality	Probabilistic/Determ  Stochastic Risk Assessment Risk Management
5: Further Assessment		
Coverage	Type	System Base
Site Specific Catchment Regional National	Procedural Mathematical Statistical Chemical Physical Biological	Paper PC - DOS PC - Windows UNIX/Mainframe
Resolution	Radioactivity	Third Party
6. Links to Standards, Targets and Da		, <u> </u>
Standards	Databases	
7. Comments		
Other regions have similar as	stems, but some have no filter mechanism.	
Other regions have similar sy	siems, out some nave no litter mechanism.	-91
Contact Alaster Driver	Location: Reading	Tel: 725 5563

Title F	LOWPATH		Form Ref WR001
Model P	urnose	<del></del>	AcronymFLOWPATH
	w. pose	4.	, terony <u>i Bo wi Kitt</u>
			of Groundwater Protection Zones. The mode 2D steady state numerical groundwater flow
sers:			141
requency	4.1	Development	License
outine		None	Licensed
riodic	<b></b>	Arguing revision	If so, number
	,		Free
ccasionall	,	Being revised	- rice
General	Assessment	Under development	
edia		Function	Risk Assessment
		W . O	The contraction of the contracti
ir		Water Quality	Qualitative
ınd	1	Water Resources	Semi-Quantitative
ater	. 1	Flood Defence	Quantitative
aste		Fisheries	Criteria 🗸
		Rec & Nav	Assessment ✓
ırpose		Conservation	Probabilistic/Determ /
gulation	1	PIR	Stochastic
perational	1	Radioactivity	Risk Assessment
anning	7	Waste Policy	Risk Management
ioritising	1	Land Quality	
Further	Assessment	*	
overage	41	Туре	System Base
te Specific		Procedural	Paper
itchment	-	Mathematical ✓	PC - DOS
gional	-	Statistical	PC - Windows
ationa)		Chemical	UNIX/Mainframe
		Physical .	
mescale	Days - Months	Biological	In-House
solution	. <i dep.on<br="" km="">grid</i>	Radioactivity	Third Party
Links to	Standards, Targets	and Databases (Cross-reference)	
andards		Database	s
Commen	nte		
OWPAT	H was developed by	Waterloo University, Canada. Input dau	a is specific to application. Flowpath is th
		of Groundwater Protection Zones.	
ferred me		of Groundwater Protection Zones.  Location: NGCLC	Tel: 722 4755

. Title MODFLOW/M	ODPATH	Form Ref WR002
. Model Purpase		Acronym MODFLOW
	ference groundwater model for modelling time va	riant flow in anisotropic, heterogeneous,
yered aquified systems.	S. J. Cons. (T) a Mariant Cons. of the Cons.	
nese models are 2D/3D S	Steady State/Time Variant Groundwater flow and	particle backing models.
sers: Regions		
requency	Development	License
outine	None	Licensed
eriodic ,	Arguing revision	[f so, number
ccasionally	Being revised	Free
	Under development	
. General Assessment		
ledia	Function	Risk Assessment
ir	Env Quality	Qualitative
	Water Resources	Semi-Quantitative
	Flood Defence	Quantitative
/aste	Fisheries	Criteria
	Rec & Nav	Assessment
urpose	Conservation	Probabilistic/Determ ✓
egulation	IPC	Stochastic
perational	Radioactivity	Risk Assessment
lanning	Waste Disposal	Risk Management
rioritising	Cont. Land	-
Further Assessment		
overage	Туре	System Base
ite Specific	Procedural	Paper
atchment	Mathematical /	PC - DOS
egional	Statistical	PC - Windows
ational	Chemical	UNIX/Mainframe
	Physical	<del></del>
imescale Days ·	Decades Biological	In-House
esolution Down	o <30m Radioactivity	Third Party
Links to Standards, T	argets and Databases (Cross-reference)	
tandards	Databası	
	Databasi	
Comments		
LOWPATH is generally	preferred over MODFLOW for derivation at Gro	oundwater Protection Zones.
- ,	•	

+

ı

Model Purpose Acronym	I. Title RESPLAN		Form Ref WR003
License  Development scheduling / resource allocation modelling  Jeers: Nigel Hepworth / Clair Rigg  Additional Information  Frequency Development License  If so, number Free  Jeerstand Jeerstand  Under development  License  If so, number Free  Jeerstand  Risk Assessment  Mater Quality  Water Resources  Fineries  Rec & Nav  Conservation  Plan  License  License  License  License  License  License  License  License  Is so, number  Free  Jeerstand  Risk Assessment  Conterior  Assessment  Assessment  Conterior  Rec & Nav  Conservation  Plan  Stochastic  Radioactivity  Land Quality  ProbabilistioDeterm  Stochastic  Risk Assessment  Assessment  Assessment  Jeerstand  Risk Assessment  Assessment  ProbabilistioDeterm  Stochastic  Risk Assessment  Assessment  Assessment  Assessment  Assessment  ProbabilistioDeterm  Stochastic  Radioactivity  Risk Management  Third Party  License  Databases  Plan  Databases  Plans and Strategies  Databases  Plans and Strategies		E-	
Development scheduling / resource allocation modelling	2. Model Purpose		Acronym
Development   License			
Additional Information   Comments   Commen	Development scheduling / resou	rce allocation modelling	
Routine	isers: Nigel Hepworth / Cla	ir Rigg	
Routine	3. Additional Information		
eriodic	requency	Development	License
Periodic Pecasionally Being revised Under development	Routine 7	None /	Licensed
Being revised   Under development	eriodic 🗸		
Under development    Conternal Assessment	Occasionally		<b>—</b>
General Assessment   General Assessment	-0.7:		
Second   S		'	
Water Resources And Water Resources Flood Defence Vaste Vaste Fisheries Rec & Nav Conservation Probabilistic/Determ Stochastic Radioactivity Radioactivity Rask Assessment Further Assessment  Coverage Type System Base  ite Specific atchment regional Assessment Chemical Physical Biological Radioactivity Radioactivity Radioactivity Risk Management  Assessment  Coverage Type System Base  ite Specific Assessment Risk Management Assessment  Chemical Physical Biological Radioactivity Radioactivity Radioactivity  Chemical Physical Biological Radioactivity Radioactivity Radioactivity  Chemical Physical Biological Radioactivity Radioactivity Radioactivity  Chemical Physical Biological Radioactivity Radioacti		-	
Water Resources   Semi-Quantitative   Quantitative    /ledia	Function	Risk Assessment	
Water Resources   Semi-Quantitative   Quantitative    ir	Water Quality	Qualitative	
Vaste Flood Defence Fisheries Rec & Nav Assessment Assessment Forestional Radioactivity Risk Assessment Further Assessment Rathement Mathematical Procedural Rational Physical Estolution Physical Estolution Radioactivity Rathematical Physical Estolution Radioactivity Rathematical Physical Estolution Radioactivity Risk Management Procedural Physical Radioactivity Risk Management Procedural Procedural Procedural Procedural Procedural Procedural Rathematical Procedural Rathematical Procedural Radioactivity Risk Management Procedural Procedural Radioactivity Risk Management Procedural Procedural Procedural Radioactivity Risk Management Procedural Risk Management Procedural Radioactivity Risk Management Procedural Risk Management Procedural Radioactivity Risk Management Procedural Risk Management Procedura	and		
Vaste   Fisheries   Rec & Nav   Assessment	Vater		·
Rec & Nav Conservation Probabilistic/Determ Stochastic Radioactivity Radioactivity Risk Assessment Risk Assessment Risk Management  Further Assessment  Coverage Type System Base  ite Specific Ratchment Rathematical Regional Assessment  Coverage Type System Base  ite Specific Rec & Nav Risk Assessment  Risk Management  Risk Management  Paper Rocedural Mathematical Paper Rocedural Mathematical PC - DOS PC - Windows Vintx/Mainframe  Physical Biological Rec & Nav Risk Assessment  In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  Radioactivity  Databases Plans and Strategies  Comments			
turpose tegulation PIR Radioactivity Rask Assessment Risk Management  Further Assessment  Coverage Type System Base  ite Specific Actional			
Regulation PIR Radioactivity Risk Assessment Risk Management Waste Policy Land Quality  Further Assessment  Coverage Type System Base  ite Specific Procedural Paper PC - DOS PC - Windows UNIX/Mainframe Physical In-House Physical Esolution Radioactivity Risk to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments	urpose		
Perational Radioactivity Waste Policy Land Quality  Further Assessment  Coverage Type System Base  ite Specific Procedural Paper PC - DOS PC - Windows I attional Physical In-House Esolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Comments  Radioactivity Risk Assessment Risk Management Value Risk Management	<u> </u>		=-
Inning Waste Policy Land Quality  Further Assessment  Coverage Type System Base  ite Specific Procedural Paper PC - DOS egional Statistical PC - Windows VINIX/Mainframe  imescale Biological In-House Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments			
Further Assessment  Type  System Base  ite Specific Procedural Paper PC - DOS PC - Windows PC - Windows Physical Physica	·		
Type System Base  ite Specific Procedural Paper atchment Mathematical PC - DOS egional Chemical UNIX/Mainframe Physical Biological In-House esolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments	_		Kisk Management 7
Type  System Base  ite Specific		Land Quanty	_
Paper Atchment Adathematical A	. Further Assessment	9.	
atchment	Coverage	Туре	System Base
atchment	· C		
egional Statistical PC - Windows UNIX/Mainframe Physical In-House Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments			
Actional Chemical Physical Physical In-House Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments			
Physical Biological In-House Esolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  Standards Water Resources Plans and Strategies  Comments		*	
Biological In-House Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments	ational		UNIX/Mainframe
Esolution Radioactivity Third Party  Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments			
Links to Standards, Targets and Databases (Cross-reference)  tandards Water Resources Plans and Strategies  Comments			
Plans and Strategies  Comments	esolution	Radioactivity	Third Party -
Plans and Strategies  Comments	Links to Standards, Targets	and Databases (Cross-reference)	ĺ
Comments		Database	es :
Comments	Plans and Strategies		
	Comments		
			. V-1
	137		-

I. Title Finite Difference Coo	de	Form Ref WR004
2. Model Purpose	9 (4)	AcronymBU
<u> </u>		
	vater model for modelling time/variant flow	
aquiter systems. These models	are 2D/3D steady state/time variant grounds	valer flow and particle tracking method.
Users: Regions		1
incegions		
L	T =	J
Frequency	Development	License
•	·	9
Routine	None	Licensed
Periodic	Arguing revision	lf so, number
Occasionally /	Being revised	Free
	Under development	1
3. General Assessment	<u></u>	
M-4'-	S	District Assess
Media	Function	Risk Assessment
Air	Water Quality	Qualitative
Land		Semi-Quantitative
Water	Water Resources Flood Defence	
Waste	Fisheries	Quantitative Criteria
	Rec & Nav	<b>→</b>
Purpose	Conservation	Assessment Probabilistic/Determ
Regulation	PIR	Stechastic Sterm
~ <del>                </del>	Radioactivity	1 3 <del> </del> 1
Planning	Waste Policy	Risk Assessment Risk Management
Prioritising		Nisk ivialiagement 7
rioritising	Land Quality	1
4. Further Assessment		
Coverage	Туре	System Base
Site Specific	Procedural	Paper
Catchment	Mathematical 🗸	PC - DOS
Regional	Statistical	PC - Windows
Vational	Chemical	UNIX/Mainframe
	Physical	0.100011001100
T:	· · · · · · · · · · · · · · · · · · ·	(-17
Timescale decades	Biological	In-House
Resolution Less than 50m	Radioactivity	Third Party
5. Links to Standards, Targets	and Databases (Cross-reference)	
Standards	Databases	·
	•	
5. Comments		•
o. Comments		2
Developed by Birmingham Univ	versity	
-		

itle Integrated Catchmen	t Management Model	Form Ref WR005
lodel Purpose		Acronym
is a finite difference groun	dwater model for modelling transient flow	n anisotropic, heterogeneous layered aquifer
rs: Regions		
quency	Development	License
tine	None	Licensed 🗸
odic	Arguing revision	lf so, number
asionally 🗸 🗼	Being revised	Free
<del></del>	Under development	
eneral Assessment		
lia	Function	Risk Assessment
		<u> </u>
	Water Quality ?	Qualitative
<u> </u>	Water Resources	Semi-Quantitative
t 🔨	Flood Detence	Quantitative /
te	Fisheries	Criteria
7)	Rec & Nav	Assessment .
pose	Conservation	Probabilistic/Determ /
ulation	PIR	Stochastic
rational	Radioactivity	Risk Assessment
ning	Waste Policy	Risk Management
ritising	Land Quality	
urther Assessment		
erage	Туре	System Base
Specific /	Procedural	Paper
hment	Mathematical /	PC - DOS
onal	Statistical	PC - Windows
onal	Chemical ?	UNIX/Mainframe
សរុស្	Physical	<del> </del>
escale decades	Biological	In-House
Down to less than 50m	Radioactivity	Third Party
inks to Standards, Target	s and Databases (Cross-reference)	
dards		S Associated database - incorporated into
		model code.
omments		- \
MacDonald - Commercial	Code	

. Title Singl	e Layer Finite Differ	ence Code	Form Ref WR006
. Model Purp	Ose		AcronymSLAY
his is a finite g	roundwater model fo	or modelling transient flow in anisot	ropic, heterogeneous, single layered, aquifer
sers: Regio	ons		
	<del></del>		
requency		Development	License
outine		None J_	Licensed
eriodic	4.1	Arguing revision	[f so, number
ecasionally	1	Being revised Under development	Free
. General Ass	essment		4
ledia		Function	Risk Assessment
ir	_ <del></del>	Water Ougling	Overlier ive
and	<b> </b>	Water Quality Water Resources	Qualitative Semi-Quantitative
/ater	<b>√</b>	Water Resources Flood Defence	<del></del>
/aste		Fisheries	Quantitative /
4310	L	Rec & Nav	Assessment
urpose		Conservation	Probabilistic/Determ /
egulation		PIR	Stochastic
perational		Radioactivity	Risk Assessment
lanning		Waste Policy	Risk Management
rioritising		Land Quality	
Further Asse	essment		
overage	0	Туре	System Base
ite Specific		Procedural	Paper
atchment	<del></del>	Mathematical	PC - DOS
egional	·	Statistical	PC - Windows
ational		Chemical	UNIX/Mainframe
		Physical	
imescale	decades	Biological	In-House
esolution	Down to	Radioactivity	Third Party
	50m		2
	idards, Targets and	Databases (Cross-reference)	
tan <b>da</b> rds	-1.50	Databa	ses
Comments			<del> </del>
eveloped by D	rmingham Universit	ay and Unicens	
raciohed by Bi	mingnam Universit	y and Haicrow.	

ŀ

ı

. Title	MIKE - System I	Hydrologique	Europeane	· · · · · · · · · · · · · · · · · · ·	Form Ref WR007	
. Model I	Purpose				Acronym MIKE S	HE
					f water resources and en	
sers:	Regions		10		-	
requency		<u> </u>	Development		License	
outine		<del></del>	None		Licensed	
eriodic			Arguing revision		if so, number	
ccasional	ly 🗸		Being revised Under development		Free	
. Generai	Assessment					
ledia			Function		Risk Assessment	
ir			· Water Quality		Qualitative	
and	7		Water Resources	<del></del>	Semi-Quantitative	
ater	1		Flood Defence		Quantitative	
aste			Fisheries		Criteria	
			Rec & Nav	(0.5)	Assessment	<b>1</b>
urpose			Conservation		Probabilistic/Detern	1
egulation			PIR		Stochastic	<b>√</b>
perational	<u> </u>		Radioactivity		Risk Assessment	1
lanning	1		Waste Policy		Risk Management	
ioritising	L		Land Quality			
Further	Assessment					
overage		4	Туре		System Base	
te Specifi	c 🗸	4.	Procedural		Paper	
atchment	1		Mathematical	1	PC - DOS	1
egional	<b></b>		Statistical		PC - Windows	
ational			Chemical	<b>✓</b>	UNIX/Mainframe	
imescale			Physical Biological		In-House	
esolution			Radioactivity	<b>——</b>	Third Party	<del></del>
			•		Third I ally	
	Standards, Tar	gets and Data	abases (Cross-referen	ce) 	10 Te	-
andards				Databases		
Comme	nts			<del></del>		
perseded	by CONSIM				3	

. Title Well Head Protection A	rea	Form Ref WR008
2. Model Purpose		AcronymWHPA
	-7	
		water Protection Zones. The model is a 2D
steady state numerical groundwater	(low model.	
Lisers:		
Frequency	Development	License
Routine	None	Licensed
Periodic	Arguing revision	If so, number
Occasionally	Being revised	Free
_ · <del></del>	Under development	
3. General Assessment	Y	,
Media	Function	Risk Assessment
Air	Env Quality	Qualitative
Land	Water Resources	Semi-Quantitative
Water	Flood Defence	Quantitative
Waste	Fisheries	Criteria
Purpose	Rec & Nav Conservation	Assessment Probabilistic/Determ
Regulation	IPC	Stochastic
Operational	Radioactivity	Risk Assessment
Planning	Waste Disposal	Risk Management
Prioritising	Cont. Land	
4. Further Assessment	1	
Coverage	Туре	System Base
	<u> </u>	·
Site Specific	Procedural	Paper
Catchment Regional	Mathematical  Statistical	PC - DOS PC - Windows
National	Chemical	UNIX/Mainframe
<u> </u>	Physical	
Timescale Days - Months	Biological	In-House
Resolution Down to <1 m	Radioactivity	Third Party
5. Links to Standards, Targets a	nd Databases (Cross-reference)	——————————————————————————————————————
Standards		
Standards	Databas	Ses
6. Comments	1	
Flowpath is generally assemble	er WHPA which has developed by the I	IS EDA
. 10 spani to generally preferred ov	er with witten has developed by the t	US LEA.

	/ater Abstraction Procedure		Form Ref WR00	9
2. Model Purpose	4		Acronym	P
The determination of	surface water abstraction lice	nce applications.		
Users: Water Res	ources staff			
3. Additional Infort	nation		7	
Frequency	Devel	opment	License	
Routine	None		Licensed	
Periodic	✓ Argui	ng revision	If so, number	
Occasionally		revised 🗸	Free	7
4 6		development		
4. General Assessm	ent			
Media	Funct	ion	Risk Assessment	
Air	Water	Quality	Qualitative	
Land		Resources	Semi-Quantitative	
Water		Defence	Quantitative	<del></del>
Waste	Fisher		Criteria	
	Rec &	Nav	Assessment	- 7
Purpose	Consc	rvation	Probabilistic/Deter	
Regulation	✓ PIR	134	Stochastic	
Operational	Radioa	ctivity	Risk Assessment	7
Planning		Policy	Risk Management	1
Prioritising	Land (	Quality	<b>-</b>	L
5. Further Assessme	ent			
Coverage	Туре		System Base	
	1,742		System base	
Site Specific	Proced	urai 📝	Paper	
Catchment	Mather	natical 📝	PC - DOS	
Regional	Statisti	·	PC - Windows	
Vational	Chemi		UNIX/Mainframe	
	Physic			
l'imescale	Biolog		(n-House	<b>/</b>
Resolution	Radioa	ctivity	Third Party	
. Links to Standard	ls, Targets and Databases (C	ross-reference)		
tandards Statute		¬	ses Hydrolog	
Statute	1.4	Databa	Nald	
. Comments		_		
		a+		
n process of review for	ollowing government direction	15.		

Environm	ent Agency							_	
Register o	f Risk Assessment?	Γοοls: P	art I - Mo	dels an	d Procedur	es			
							_		
t. Title	Micro Low Flows V	21					Form Ref	WR009	
	L <u></u>		4			1	9.		
2 Madal I	D.,						I		
2. Model I	urpose						Acronym		
[	Used to estimate natu	real and :	ntificially	nfiltrate	d flow statist	ics at ungs	auged river s	ires	
	Oscu to estimate mate	nai ana a	nunciany	iii (ii a a c c	a tion statist	ics at unge	auged (ivel 3	iles.	
	<del></del>								
Users:	Water Resources stat	f (hydro	geological)	and Wa	ter Quality	1			
<b>i</b>	Staff.								
'	L					•			
3 Addisia	nal Information								
Frequency			Developn	ent			License		•
			Develop.				Bicciisc		
Routine			None		<u> </u>	]	Licensed		
Periodic	7		Arguing r	evision		=	If so, numb	er	up to 20
Occasional	ly	*	Being rev	ised		İ	Free		
			Under dev	elopmer	ıt 🗸				
4. General	Assessment					_			
],,							0.1.4		
Media			Function				Risk Asses	sment	
Air			Water Qu	ality	<del></del>	ī	Qualitative		
Land	<del>                                     </del>		Water Res		<del></del>	1	Semi-Quan		<b>——</b>
Water	<del></del>		Flood Det		<del></del>	t	Quantitativ		7
Waste	<del></del>		Fisheries		<b>——</b>	1	Criteria		
	<del></del>		Rec & Na	v		1	Assessmen	t	7
Ригрозе			Conservat	ion		1	Probabilisti	ic/Determ	n 🗸
Regulation			PIR			]	Stochastic		
Operationa	1		Radioacti	-			Risk Asses		/
Planning			Waste Pol				Risk Mana	gement	
Prioritising			Land Qua	lity	L	J			1.0
5 Eurthar	· Assessment			4.0					
J. Purtilei	Assessment								
Coverage			Туре				System Ba	se	
}			- 7 F				-,		
Site Specifi	ic 🗸		Procedura	l		}	Paper		
Catchment			Mathemat	ical	1	]	PC - DOS		
Regional			Statistical			]	PC - Windo		v 30
National			Chemical			ļ	UNIX/Mair	nframe	
<b>T</b>			Physical						
Timescale Resolution			Biologica			ļ	In-House Third Part	<b>.</b> .	<del></del>
Kesolution	<u> </u>		Radioacti	vity	<u> </u>	.2,	I niru rari	ıy	
6. Links to	Standards, Targets	and Dat	abases (C	ross-refe	rence)				
		<b>u</b> ,, <b>u u</b> .	. LD _ 545 ( C	. 000 7 214	,, , , , , , , , , , , , , , , , , , , ,				
Standards					Databases	Rainfall,	artificial inf	iltration	and
	<u></u>					abstractio	on.	(4)	
7. Comme	ents								
					<del></del>	<del></del>			
ĺ	System developed by				y Regions. N	New version	on V31 due t	o be rele	ased. From
	June 2000 will be im	plemente	d national	<u>y.</u>	- 6				
Contact	Robert Grew		Location:	Eveter		1	Tel:	724 207	2
	Trobert Grew		cocation.	LXCC				12-201	-
1						j			

B

1. Title	Water Resources Me	ndel	Form Ref WR010
i. titie	water Resources (VI		Form Ket WKO10
2. Model	Purpose		Acronym WRM
	(1)V (2)	7. 200.41	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		et levels of service for consumption give	of existing and proposed WR Developmen existing and forecast demands against
			7
Users:	- C		
	onal Information		1 × 1
Frequenc	y	Development	License
Routine		None	Licensed
Periodic	—	Arguing revision	If so, number
Occasiona	iny	Being revised Under development	free
4. Genera	al Assessment	Onder development	
Media		Function	Risk Assessment
Air		Water Quality	Qualitative
Land		Water Resources	Semi-Quantitative
Water		Flood Defence	Quantitative /
Waste		Fisheries	Criteria
_		Réc & Nav	Assessment 🗸
Purpose		Conservation	Probabilistic/Determ 7
Regulation Operation		PIR	Stochastic Risk Assessment
Planning	" -	Radioactivity Waste Policy	Risk Management
Prioritisin;	1	Land Quality	rosk trianagement
5. Furthe	r Assessment		
C		_	C . P
Coverage		Туре	System Base
Site Speci		Procedural	Paper
Catchmen	<b></b>	Mathematical -	PC - DOS
Regional	7	Statistical	PC - Windows
Vational		Chemical	UNIX/Mainframe /
Fimescale	9-8	Physical Biological	In-House /
Resolution	4 T 10	Radioactivity	Third Party
5. Links (	o Standards, Targets	and Databases (Cross-reference)	41
Standards	DGI-IV	Databases	Regional hydrometry water demands
	L		forecasts.
7. Comm	ents		
			(F)

Title	Thames Catchment Mod	del River Flow Generation	Form Ref WR011
Model	Purpose		Acronym
	To gonzale	5 'L1	
	with the Thames WR m	or possible fature river flows for afference odel (for reservoirs). River Flows + reservoirs	nt rainfall scenarios used in conjunction ervoirs = Drought Management Model.
ers:			
	L		30 N
Additio	onal Information		†
equency	y	Development	License
outine		None	Licensed
riodic		Arguing revision	If so, number
casiona	lly	Being revised	Free
Genera	l Assessment	Under development	. V.
edia		Function	Risk Assessment
ir	<u> </u>	Water Quality	Qualitative
ınd	<del></del>	Water Resources	Semi-Quantitative
ater	<del></del>	Flood Defence	Quantitative
aste		Fisheries	Criteria
	<b></b>	Rec & Nav	Assessment
ırpose		Conservation	Probabilistic/Determ /
gulation		PIR	Stochastic
perationa	л ——	Radioactivity	Risk Assessment
anning		Waste Policy	Risk Management
ioritising		Land Quality	•
Further	r Assessment		
overage		Туре	System Base
te Specif	ic /	Procedural	Paper
itchment	<b>7</b>	Mathematical	PC - DOS
gional		Statistical	PC - Windows
tional		Chemical	UNIX/Mainframe
- • -		Physical	-
mescale		Biological	In-House
solution	<b>I</b>	Radioactivity	Third Party
Links to	o Standards, Targets and	Databases (Cross-reference)	
ındards		Databases [	Daily rainfall and River Flow databases.
			· 
Comme	ents		•
	May be calibrated for an	y river site where real flow data is avail	able.
	L		
ntact	Brian Greenfield	Location: Reading	Tel: 725 5320
— ••	- Continued	Location, Icading	101. /23 3320

.

	ent Agency			
Register o	f Risk Assessment To	ools: Part I - Models and P	rocedures	*
. Title	Drought Management	System		Form Ref WR012
. Model F	²urpose			Acronym DMS
1	Operational planning a	nd management of water reson	urres Provides a b	road accomment of riple of
	resource/supply failure storage, and run off at	given statistical likelihood of	different rainfall s	cenarios given actual reservoir
sers:			<del></del>	
l				
				000
	nal Information			
requency		Development		License
outine		None		Licensed
eriodic		Arguing revision		If so, number
ccasionall	у	Being revised		Free
General	Assessment	Under development	- F	
ledia		Function	1	Risk Assessment
ir		Water Quality		Qualitative
and		Water Resources	<del></del>	Semi-Quantitative
ater	7	Flood Detence		Quantitative
aste		Fisheries	- 1	Criteria
*		Rec & Nav		Assessment
urpose egulation		Conservation		Probabilistic/Determ
perational	<del></del>	PIR		Stochastic
anning	<del> </del> _	Radioactivity Waste Policy		Risk Assessment
ioritising		Land Quality		Risk Management
Further A	Assessment			
overage	de y	Туре		System Base
te Specific		Procedural	<del></del> ı	Paper
tchment		Mathematical		PC - DOS
gional	7	Statistical		PC - Windows
itional		Chemical		UNIX/Mainframe
nescale		Physical	7	
solution		Biological Radioactivity		In-House Third Party
Links to S	Standards, Targets and	d Databases (Cross-reference	<b>:</b> )	**
ındards D	G1-IV	Dat	abases Rainfall da	uta —
			abases Rannan da	ta .
Comment	s			
1.0			<del></del>	
		· ·	<del></del>	
ntact D	ave Elford	Location: Reading		Tel: 725 5386
			_	

	nent Agency of Risk Assessment	Tools: Part I - Models an	d Procedures			
Title	Bursts and Background Estimates			Form Ref	Form Ref WR013	
Model	Purpose	Acronym [	Acronym BABE			
	To estimate the leve	el of leakage of water from di	stribution system	1,		
		191				
sers:	Water Resources Planning staff National Water Analysts and Resources Planners					
Additio	onal Information	·				
equency	y	Development		License		
outine riodic ccasiona	lly	None Arguing revision Being revised	7	Licensed If so, numb	er 💮	
Genera	II Assessment	Under developmen	nt		:	
edia		Function		Risk Asses	sment	
r and ater aste erpose gulation perationa		Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Radioactivity	7	Qualitative Semi-Quan Quantitative Criteria Assessment Probabilisti Stochastic Risk Assess	c/Determ	
inning oritising		Waste Policy Land Quality		Risk Manag		
Furthe	r Assessment	*			¥	
overage		Туре		System Bas	se	
te Specif atchment egional ational	L	Procedural Mathematical Statistical Chemical Physical Biological	<i>y y y y</i>	Paper PC - DOS PC - Windo UNIX/Main	frame	
solution	o Standards Towns	Radioactivity		Third Part	y []	
	Applies principles of "Managing Databases   Supply/Infrastructure data customer Leakage"   Information   Leakage   L				data customer base	
Comme	ents					
		C contractor) covering key a	reas of leakage a	essessment and mar	agement used to	
		software (ACCESS).	············			
ntact	David Howarth	Location: NWDM	C-Worthing	⊹ Tel:	723 2127	

	ment Agency of Risk Assessment	Tools: Part 1 - Models and Procedo	ures		
1. Title	Demand Forecastin	g Model	Form Ref WR014		
2. Model	Purpose	Acronym DFM			
	To forecast public v	vater supply demands for the future.			
Users:		lysts and Water Resources Planners ources Planning staff			
3. Additio	onal Information				
Frequenc	у	Development	License		
Routine Periodic Occasiona 4. Genera	al Assessment	None Arguing revision Being revised Under development	Licensed If so, number Free		
Media		Function	Risk Assessment		
Air Land Water Waste Purpose Regulation Operations Planning Prioritising	al 🗸	Water Quality Water Resources Flood Defence Fisheries Rec & Nav Conservation PIR Radioactivity Waste Policy Land Quality	Qualitative Semi-Quantitative Quantitative Criteria Assessment Probabilistic/Determ Stochastic Risk Assessment Risk Management		
5. Furthe	r Assessment				
Coverage		Туре	System Base		
Site Special Catchment Regional National Timescale Resolution		Procedural Mathematical Statistical Chemical Physical Biological Radioactivity	Paper PC - DOS PC - Windows UNIX/Mainframe  In-House Third Party		
6. Links t	to Standards, Target	s and Databases (Cross-reference)	-		
Standards	Water Industry Stan	dard Method Database	Databases Census data Supply and demand data		
7. Comm	ents				
	Product of joint NR.	A/UKWIR R&D project. Contractor was	s NERA.		
Contact	David Howarth	Location: NWDMC-Worthin	g Tei: 723 2127		

: