

1. **Family name:** REYNOLDS
2. **First names:** Patrick
3. **Date of birth:** 1959
4. **Nationality:** Irish
5. **Civil status:** Divorced
6. **Education:**

Institution [Date from - Date to]:	Degree(s) or Diploma(s) obtained:
University College, Galway, Ireland (1983 – 1986)	Ph.D Support Matrix Effects in Upflow/Hybrid Fixed Film Anaerobic Reactors Treating Agricultural and Industrial Wastewaters
University College, Cardiff, UK (1979 – 1983)	BSc (Hons) in Microbiology

7. **Language skills:** Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English (mother tongue)	1	1	1

8. **Membership of professional bodies:** N/A
9. **Other skills:** Highly computer literate using comprehensive programmes; Trained in Project and Contract Management; Website Design
10. **Present position:** Team Leader/ Water Resource Management Expert
11. **Years within the firm:** N/A
12. **Key qualifications:**

Dr. Reynolds is an exceptional **Team Leader and Water Resources Management (WRM) Expert** with profound experience in IWRM and river basin management planning based on the EU Water Framework Directive and other relevant water directives. During his career, he worked extensively in the EU MSs, Candidate and Potential Candidate countries through various **projects and assignments funded by the EU-IPA, CARDS, PHARE and TACIS, the World Bank, the UNDP, etc.** Some of his relevant projects for this assignment are mentioned below:

- **Team Leader in Montenegro, 1.2M EUR, EU project “Strengthening Capacities for Implementation of the EU Water Framework Directive in Montenegro”;**
- **Team Leader in Albania, 1.3M EUR, WB project “Preparation of RBMPs for the Drini-Buna and Semani River Basins”;**
- **Water Resources Management Expert, WB Project “Preparation and Implementation of IWRM project in Albania”**
- **Team Leader in Support water resources planning for Kagera River Basin (Nile Basin Initiative)**
- **Team Leader in development of an “Environmental and Natural Resource Management Action Plan for the Upper Shire River Basin” 1.2 M USD (Millennium Challenge Corporation)**
- **Component Leader/Key Expert in FYROM, 1.7 M EUR, EU – IPA project “TA for Strengthening the Institutional Capacities for Approximation and Implementation of Environmental Legislation in the Area of Water Management”;**
- **Deputy Team Leader/Key Water Expert in BiH, 2.8 M EUR, EU-IPA Project Strengthening of BiH’s Environmental Institutions and Preparation of Pre-Accession Funds”, BiH;**
- **Team Leader, EU-PHARE “TA for Water Quality Management of the Arda River”, Bulgaria and Greece;**
- **Team Leader for EU “Management of Transboundary Water Resources in the Vardar/Axios River Basin”, FYROM and Greece;**
- **Team Leader, EU-PHARE “Integrated Management of the Waters of Mesta/Nestos River Basin”, Bulgaria and Greece;**
- **Team Leader for the GEF/UNDP “Black Sea Ecosystem Recovery Project”, Black Sea Riparian Countries;**
- **Senior Water Management Expert, EU-TACIS “Development of Transboundary Co-Operation Water Quality Monitoring and Assessment Bug River between Belarus and Poland”.**

His other key qualifications include the following:

- **20 years of professional experience in the water management sector**
- **Assistance to various water authorities and ministries with activities related to water resources planning and implementation of IWRM and EU WFD as well as with preparation of River Basin Management Plans;**
- **Experience as Team Leader/Key Expert/Project Manager on 12 IFIs water management projects worldwide;**
- **Technical assistance in development of national and international water policies, adjustment of national legislation to the EU acquis in EU Candidate and Potential Candidate countries;**
- **Vast experience with transboundary and integrated RBM in compliance with the EU WFD 2000/60/EC;**
- **Highly skilled in providing trainings, on-the-job trainings and workshops to different water and RBM authorities;**
- **Extensive experience with PCM, including the LFA, institutional capacity assessment, project formulation, preparation of the ToRs, promoting participation and facilitation, monitoring and reporting;**
- **Strategic planning advisor, dialogue/liaison with clients/beneficiaries as well as technical coordination and quality control;**
- **Excellent communication, motivation, and interpersonal skills; Excellent knowledge of the peculiarities of the region of Southeast Europe, including legal and institutional set-ups;**

13. **Specific experience:** Malawi (2010); Rwanda (2011); (Montenegro (2017-Present); Albania (2016 – present), BiH (2012-2014), FYROM (2014-2015, 2006 – 2011) Bulgaria (1998 – 2007) Greece (2005-2007); All Danube countries (1999-2000) Black Sea Riparian States (2002-2005).

14. Professional experience:

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04/2017-present	Montenegro	SUEZ/Eptisa for EUD, Montenegro	Team Leader	EU – IPA project “Strengthening Capacities for Implementation of the EU Water Framework Directive in Montenegro 1.2 M EUR: The project will establish the necessary conditions for improved water resources management in the country in line with requirements of the EU WFD - http://euwfd.me/
04/2016-present	Albania	Mott MacDonald for the World Bank/SIDA	Team Leader	World Bank/SIDA project “Preparation of River Basin Management Plans (RBMPs) for the Drini-Buna and Semani River Basins” 1.3 M EUR project: Leading the team of experts to prepare RBMPs that will address all water resource and management aspects based on the EU-WFD. Provision of expert advice for identification of structural and non-structural measures to improve the quality of Integrated Water Resources Management and support strengthening capacities to implement RBMPs through provision of training and goods to River Basin Agencies.
01-04/2016	Albania		Water Resource Management Expert (3 months)	World Bank Project “Preparation and Implementation of IWRM project in Albania” 0.7 M EUR: Chief editor of National Integrated Water Resource Management Strategy aimed to outline strategic planning for priority areas and proposals for capacity development. It addresses the objectives of the EU-WFD implementation and includes specification of water policy and resource implications.
09/2014-12/2015	FYROM	Ramboll for EU-IPA	Key Expert - Component Leader / RBM Expert (15 months)	EU – IPA project “Technical Assistance for Strengthening the Institutional Capacities for approximation and implementation of environmental legislation in the area of water management 1.7 M EUR: Leading the component to provide inputs to the assessment of the current administrative structure and its capacity to effectively implement the water management legislation with its specific focus on EU-WFD and to support development of the initial elements of the River Basin Management Planning of Vardar River. The expert also worked on developing suitable organizational options for optimization and strengthening the water management structures of the project beneficiary country.
03/2012 – 07/2014	Bosnia & Herzegovina	EPTISA for EU-IPA	Key Water Resources Expert / Deputy Team Leader (29 months)	EU-IPA Project “Strengthening of Bosnia and Herzegovina’s Environmental Institutions and Preparation of Pre-Accession Funds” 2.8 M EUR: The objective was to strengthen the administrative structures and foster the approximation process and support implementation of the EU Environmental Acquis (including relevant EU water policies, WFD and other water directives). The expert led water management component and worked on strengthening technical and IPA-compliant planning capacities of the institutions involved in environmental and water management in BiH to achieve EU environmental and water standards. The expert also provided assistance in the production or relevant documents in order to support implementation of EU-WFD requirements namely through development of Directive Specific Implementation Plans for the water sector ‘Heavy Investment Directives’ (Urban Waste Water, Drinking Water, Flood management etc.).
01/2009 – 02/2012	UK	Water Resource Associates Ltd Based in UK	Director/Water Management Expert (38 months)	Director and Expert of Water Resource Associates based in the UK providing and coordinating specialist consultancy in the UK and worldwide the field of hydrology, water management and resources planning, water quality, flood control, hydrogeology, basin development, systems analysis and modelling applying the requirements of the EU acquis and the WFD.
01 – 07/2011	Burundi, Rwanda, Uganda		Team Leader (3.6 months)	Support water resources planning for Kagera River Basin through development of Feasibility Study for an integrated watershed management program 1.5 M USD project. The objective was to define the status of environmental degradation in the Kagera River Basin and identify interventions to reverse degradation and an appropriate institutional set up for project implementation on national and transboundary levels.
07-12/2010	Malawi		Team Leader (4.5 months)	Support for water resources planning by developing of an “Environmental and Natural Resource Management Action Plan for the Upper Shire River Basin” 1.2 M USD, being the most important water catchment in Malawi. The ENRMAP resulted in the determination of priority areas and selection of interventions within the Upper Shire in relation to potential for soil control of invasive species.
01-12/2008	UK	Scott Wilson Ltd	Water Management Advisor (12 m)	Performing water management advisory services for the company in the UK and abroad and developing a wide range of projects and assignments related to Water Management and Water Governance. The expert conducted research and developed various Water Resources Management Projects including fact-finding missions to beneficiary countries like Bosnia and Herzegovina.
01/2006 - 11/2007	FYROM and Greece	ARCADIS Euroconsult (Mott MacDonald), for EU-CARDS	Team Leader (24 months)	EU-CARDS project 1 M EUR “Improvement of the Management of Trans-boundary Water Resources in the Vardar/Axios River Basin”: Assistance to FYROM in entering into joint efforts with Greece to improve cooperation on water management and river basin planning. The project worked on program documents, which aid the progress towards implementation of the EU WFD incl. measures for protection and enhancement of aquatic ecosystems, wetlands and linked ecosystems of land, whilst also simulating improvement of cross-border coordination of shared water and natural resources with Greece. The expert contributed in the preparation of the transposition of FYROM water law in line with the requirements of the EU and development of a comprehensive River Basin Management Plan based on the EU WFD. The improvement of the river basin management were initiated by assessment of: (i) The surface water resources and water demands; (ii) The effect of river pollution from all sources; (iii) Current river management practices; iv) The current levels of pollution of surface waters; (v) The importance of water flow and quality related to the river and lake; (vi) The water balance and its effect

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				<p>on lake levels and water quality and establishment of cooperative monitoring efforts; (vii) The groundwater monitoring arrangements in the Vardar river basin adjacent to the border with Greece and recommendations for improvements; (viii) The design of a monitoring network with division of responsibilities on a national level.</p> <p>Stimulated cooperation between the FYROM/Greece in the management of the Vardar/Axios basin and of Lake Dojran as part of the basin. The mechanisms for cooperation between FYROM and Greece, for future basin management, were established and institutions for joint river management were strengthened.</p>
03 - 09/2007	Bulgaria and Greece	ARCADIS Euroconsult (now Euroconsult Mott MacDonald) for EU-PHARE	Team Leader (7 months)	EU-PHARE “TA for Water Quality Management of the Arda River” 0.5 M EUR project: leading the project to achieve the objective to establish partnership between the stakeholders of Bulgaria and Greece based on the EU standards for integrated WRM according to the EU WFD 2000/60/EC and other EU water directives as well as increase the capacity regarding strategic planning to improve the quality of Arda River . The project, furthermore, supported preparation of the implementation programme of the acquis with particular emphasis on water quality in respect of the Directive 2000/EEC for establishing of framework for Community action in the field of water policy and of the Convention on protection and use of the cross-border water . The project also provided a programme for monitoring of the Arda River water quality and for reservoirs water; increasing the capacity regarding strategic planning for improving the quality of Arda River according to the requirements of the WFD ; Strengthening administrative, monitoring and enforcement capacity at different levels, with the accent on regional and local levels.
06/2005-10/2005	Bulgaria and Greece	Project Management Ltd (Ireland) for EU-PHARE	Team Leader (5 months)	EU-PHARE project “Integrated Management of the Waters of Mesta/Nestos River Basin” 0.4 M EUR project: Developing the main elements of the draft River Basin Management Plan for Mesta River Basin in accordance with the requirements of the Water Framework Directive 2000/60/EC focused on the river basin characteristics, preliminary pressure and impact analyzes and GIS development . (i) assessment of the basin characteristics (ii) technical capacity building and assessment of the staff of the local River basin Directorate , (iii) Gaps in data, technical and HR critical for the further implementation of the requirements of the WFD and identification of main RBM issues , and (iv) Strategic capacity building , and management support to the Joint Coordinating Body of the Mesta/Nestos River Basin , formed under the INTERREG LLLA A – PHARE CBC Greece – Bulgaria. Project included cross-border counterparts coordination through: common technical approach to the requirements of WFD , durable lines of communication and management frame between responsible regional Bulgarian and Greek Basin authorities , common agreed water quality objectives as well as common programs of measures within the Mesta/Nestos River Basin Management Plan as part of bilateral agreement between the two countries . Dr. Reynolds was responsible for the advisory services, technical coordination/quality control .
04/2002-04/2005	Black Sea Riparian Countries Bulgaria, Georgia, Romania, Russia, Turkey, Ukraine	GEF/UNDP, employed by UNOPS	Team Leader / Chief Technical Advisor (38 months)	GEF/UNDP “Black Sea Ecosystem Recovery Project (GEF/UNDP) budget 4 M USD. The project supported implementation of the EU acquis and the WFD as well as EU/multilateral agreements such as “Black Sea Convention” , etc. Project components included: <ul style="list-style-type: none"> ▪ Implementation of the Black Sea Environmental Programme and evaluation of potential fisheries-free zones and Marine Protected Areas, their promotion with Black Sea governments and stakeholders; their incorporation into the Landscape and Biological Diversity Protocol to the Bucharest Convention; ▪ Strengthening of the project institutional network within the Black Sea Riparian Countries; ▪ Introducing new water and environmental laws/policies for monitoring the effectiveness to control pollution; ▪ Support to strategic planning by elaboration of water management strategies for incorporation of revisions and amendments in laws and policies in accordance with the EU acquis and WFD, and indicators for government approval; ▪ Protection of coastal/ marine ecosystems and habitats to secure sustainable use of marine resources; ▪ Reinforcing the legal background and promoting the implementation of the global Programme of Action for the control of ecosystems on land in the Black Sea region; ▪ Setting up of Joint Management Committee (Black Sea and Danube Commissions) for decision making; ▪ Drafting Black Sea Ecosystem Strategic Action Plan.
06/01-01/02	UK / Belarus, Ukraine and Poland	Halcrow for EU-TACIS	Senior Water Management Expert – Advisor (4.5 months)	EU-TACIS Development of Transboundary Co-Operation Water Quality Monitoring and Assessment Bug River Between Belarus and Poland. Main responsibilities included (i) the development of a trans-boundary water information management system between Belarus, Poland and Ukraine; (ii) the designation of environmental quality objectives and standards for the Bug river and support for monitoring system in accordance with the requirements of the EU WFD .

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05 - 09/'01	UK / Iran	Halcrow Group Ltd for GEF/UNDP/WB/EU	Senior Water Management Expert (2.7 months)	Caspian Sea Environment Programme-CEP (GEF/UNDP/WB/EU): The Regional Programme aimed to halt the deterioration of environmental and water management conditions of the Caspian Sea and to promote sustainable development in the area. Main activities included: Creating regional coordination mechanism; Establishing nine Caspian Regional Thematic Centres; Preparation of strategic action plans for investment; Legal, policy and institutional development and reform. Besides, the CEP's public awareness programme focuses on i) awareness raising and facilitating a transparent information flow; ii) establishing and strengthening the legal and institutional basis for public participation. Dr. Reynolds was also involved in the design of a regional water management and sediment quality monitoring programme and the implementation of environmental quality objectives for water, sediment and biota for the future management in Caspian Sea.
01-09/'01	UK / Russia	Halcrow for DfID	Senior Water Management Expert (2.5 m)	"TA for Development of Strategic and Short-term Investment Plans for the city of Rostov, Russia", funded by (DFID). The expert provided technical assistance in relation to integrated sustainable water management for the city of Rostov including the study of the impact of pollution sources and a strategic plan for upgrading and expansion of the water services.
10/'00-02/'02	UK / Ukraine	Halcrow for EU-TACIS	Senior Water Management Expert (3.6 moths)	EU-TACIS "The updating of Vodokanal's Environmental Protection and wastewater treatment laboratory facilities in Zaporozhzhia": Assistance provided to Vodokanal in liaison with donor organisations and the drafting of a proposal for the procurement of equipment and training of staff for procedures of quality control.
02-09/'00	UK / Turkey	Halcrow for the GEF/UNDP	Senior Water Management Expert (5 months)	The Regional Nutrient Reduction Programme for the Black Sea Basin: Implementing of new policies, institutional and regulatory measures for nutrient reduction, Implementing investment projects for water pollution, Capacity building for water pollution management including monitoring systems, Adopting of legal mechanisms at national and regional level to control nutrient releases to the Black Sea. Dr. Reynolds reviewed policy and legislation for regional protection of surface waters from nutrients. Development of Black Sea ecosystem indicators and environmental status framework.
06/'99-01/'00	All Danube Countries	Halcrow for the EU-PHARE	Senior Water Management Expert (3.5 m)	EU-PHARE "Environmental Programme for the Danube River Basin" for all Danube Countries: Austria, Slovakia, Hungary, Croatia, Serbia, Romania, Bulgaria, Moldova Ukraine with the aim to improve river basin management according to the EU-WFD and UNECE guidelines. Dr. Reynolds was responsible for: a) water and river sediment quality for the Danube river and transboundary river basins and for an assessment of the water quality survey along the entire length of the Danube River.
07-12'99	UK		Water Management Advisor (3.5 m)	Advisor for the development of Environmental Risk Assessment for a Coastal Realignment Scheme for UK Environmental Agency. The study involved the use of environmental risk assessment procedures to determine the present and future impact of agrochemicals to surface waters and coastal habitats.
04/1998-06/1999	Ukraine Bulgaria, Georgia, Romania, Russia, Turkey	WRc plc/Halcrow for EU/GEF/UNDP	Senior Water Management Advisor (12 months)	Black Sea Environment Programme - EU TACIS/ GEF/ UNDP. The purpose of the Programme was to strengthen and create regional capacities for managing the Black Sea water and ecosystem, develop an appropriate policy and legislative framework. Dr. Reynolds was shaping the policy and legislation for environmental standards in water, sediment and biota for the management of the Black Sea and involved in liaison with regulatory and technical specialists from the beneficiary countries.
10/'97-04/'98	UK/ Brussels	WRc plc for EC	Team Leader / PM (7 months)	Assessment of the Environmental Code of Conduct proposed by the Detergent Agency (EC (DG111-Industry). The expert was responsible for leading the project that included the study for the proposed Code of conduct by the Association de la Savonnerie-Detergence et des Produits (A.I.S.E) on behalf of DGIII.
02/'97-08/'98	UK/ Brussels		Team Leader / PM(13 months)	Improvements to the EU Legislation for Surfactants in Detergents that May Pose a Risk to Surface Waters 25,000 EUR (EC (DGIII). Dr. Reynolds managed the project team and the study that was designed to identify the impact of surface-active ingredients in detergents that may pose a risk to surface waters and also define policy options for updating current legislation.
01/'93-01/'97	UK	WRc plc	Team Leader / Project Manager (31 months)	Landfill 2000 – A Field trial of Accelerated Stabilisation. Dr. Reynolds managed the project and the team of experts to conduct the study involved on-site and laboratory analysis of leachate and gas quantity and quality within two purpose-built prototype waste processing cells.
04/'91-06/'94	UK	WRc plc	Project Manager (39 months)	UK DoE: Wastewater Treatment Trials - involving the evaluation of treatment of leachate liquid effluent by anaerobic digestion, aerobic treatment, nitrification and denitrification processes.
01/1989 - 03/1991	UK	University of Essex	Postdoctoral Researcher (27 months)	UK DoE: Postdoctoral Researcher, Anaerobic Treatment of Industrial and Municipal Wastewater Containing High Levels of Sulphate - This involved the development of novel biological processes for the treatment of liquid waste containing high levels of sulphate. The study resulted in the development of a first stage high rate sulphate reducing bioreactor in combination with a methanogenic phase. Sulphide removal was approached by the design of a photosynthetic reactor.

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15. **Other relevant information:** Founder of EMA (Environmental Management Associates), an environmental management and consulting company located in Skopje, FYR Macedonia. Its establishment is as a result of the continuous efforts in improvement of the environmental and River Basin ecosystems in the FYROM and the region. Website: www.ema.com.mk Courses: 1) Project and Contract Management (EMAS, 1992). Total Quality Management training (1992). 2) Innovation and Technology (1996-1997). Passed 3rd Level Course, 3) The application of UN/ECE guidelines for Trans-boundary River Basin Management and Ecosystem Management.