Mekong River Commission's Visit to the Columbia River Basin
April 29-May 2, 2008
(Draft/25-Apr-2008)

1. A group of 16 high-level government officials from the Lower Mekong Basin countries (Thailand, Laos, Vietnam and Cambodia) and the Mekong River Commission (MRC) secretariat will be visiting Portland, OR from April 30, 2008 through May 2, 2008.

2. The delegation is headed by an Under-Secretary of State from Cambodia, a Deputy Minister from the Lao PDR, a Department Director General from Thailand, and a Deputy Department Director from Viet-Nam. The newly selected Chief Executive of the MRC Secretariat –a former affiliate of the World Commission on Dams headquartered in South Africa-- will also accompany the delegation. See list of participants in Appendix A.

3. The MRC, formally created in 1995, is the successor of the previous Mekong River Committee created by the United Nations Development Program (UNDP) after the end of the Viet-Nam War in 1954. From 1955 through to the mid-1960s, several hydropower dams were built on tributaries, but none over the river mainstem despite significant field investigations by donor countries such as the U.S. (through the Bureau of Reclamation). Lack of stability in the region resulted in the interruption of Mekong Committee sessions in the late 1970s.

4. Main visitors' interest are: (1) basin-wide development opportunities and constraints, (2) processes used to build effective and lasting partnership with stakeholders, and (3) mitigating measures that address some of adverse effects of water resources development on the environment and fisheries. Joint management of the river and trading of upstream storage flood control benefits and hydropower revenues between the countries are of great interest to them.

5. Hydropower development is probably one of the MRC's top priorities, with an estimated potential of 17,000 MW for the tributaries and 13,000 MW for the mainstream. Only 4,450 MW has been developed to date (1,600 MW in the Lower Mekong Basin; 2850 in the Upper Basin). Demand in the Lower Mekong Basin is expected to grow by around 7% per year over the next 20 years, and there are substantial opportunities for trading of power between the countries in the region. Challenges include lack of an effective regional transmission system, competition from other power sources, and resistance to hydropower development due to concerns about the impacts of dams on fish migration and the river flow regime.

6. The MRC picked the Columbia River because it has many similar physical and international features as the Mekong River. In 1957, one of the former Chiefs of Engineers, LTG Wheeler, was asked by the United Nations to organize a high-level study of the Mekong basin. In 1965-67 the then NPD trained 10 Mekong engineers in Portland, OR, and later sent two senior engineers to lead hydropower planning effort at the original Mekong Secretariat in Bangkok. An earlier study tour planned for 2001 was canceled at the last minute due to the 911 event.

7. This visit was at the invitation of HQUSACE (Dr. Don Kisicki, Interagency and International Services), following MRC's direct contact with Dr. Jerry Delli Priscoli, senior adviser to the Institute of Water Resources and member of the Board of Governors of the World Water Council. Dr. Priscoli was then teaching a course in conflict resolution in Southeast Asia under UNESCO and World Bank's funding.

8. NWD-Water Management was subsequently asked by HQUSACE to make arrangements for the visit. Dr. Bolyvong Tanovan, Chief of Power Branch was the main local POC, working closely with Dr. Jerry Priscoli and under the guidance of Mr. Jim Barton (Chief of Columbia Basin Water Management Division) and Mr. Witt Anderson (Program Director).

9. To address the MRC's interests, the study tour will include 3 days of briefings and discussions, and 2 days of field trip. Briefings will cover the Columbia River system, Columbia River Treaty with Canada, multi-purpose river operations, salmon recovery, and federal executive decision-making. Trips to the Bonneville Dam and Grand Coulee Dam are scheduled to visit the projects and observe power and fish passage facilities. Open, joint discussions with the major stakeholders will take place with the participation of representatives from the Bonneville Power Administration, British Columbia Hydro, National Marine Fisheries Service, U.S. Fish & Wildlife, public and private utilities districts, The Nature Conservancy, Native American Tribes (Columbia Inter-tribal Fish Commission and Colvilles), and American Rivers.

10. A representative from the Hydrologic Engineering Center has been invited to brief the MRC on hydrologic models contemplated for use for Mekong Flood Forecasting. This is part of a cooperative program currently led by the Pacific Ocean Division. The Director of the Hydro-electric Design Center will also make a presentation on the Center of expertise's capabilities that are available for overseas support.

11. To take advantage of the ongoing US Society of Dams conference and the presence of LTG Van Antwerp at the dinner event on Tuesday April 30, 2008, reservations will be made to allow the MRC delegation to be introduced to the Chief of Engineers. A VTC session is also scheduled to allow for more direct discussions on lessons learned and future steps with HQUSACE and PACOM.

12. The Mekong River is one of the key river basins of strategic interests to the U.S. Currently USAID is funding the Eco Asia Programs and MRC is expected to sign an MOU for more cooperative programs with USACE soon. Additional key facts on that river are provided in Appendix B.

Appendix A. List of the MRC Delegation Members

1) H.E. Sin Niny (Cambodia)
Vice-Chairman of the Cambodia National Mekong Committee, MRC Joint Committee member for Cambodia.

2) H.E. Nei Lorn (Cambodia)
Under Secretary of State, Ministry of water resources and Meteorology, Cambodia

3) Mr. Watt Botkosal (Cambodia)
Director of Planning Department of Cambodia National Mekong Committee (CNMC). He has a MSc. in Forestry Science and EMBA on Human Resources Management. Before joining CNMC (1997) he worked at the Department of Forestry, Ministry of Agriculture, Forestry and Fisheries. He is responsible for coordination and facilitation the MRC Basin Development Program (BDP) and involved in ADB and other projects.

4) H.E. Bounthavy SISOUPHANTHONG (Lao)
Deputy Minister of Ministry of Planning and Investment of Lao PDR. His background is in Sciences Economics. He worked as Permanent secretariat, committee for Planning and Investment (CPI) and Vice President of Committee for Planning and Investment (CPI).

5) Mr. Chanthavong SAIGNASITH (Lao)
Director General of Lao National Mekong Committee Secretariat. His background is in Civil Engineering, with experiences in public investment programmes at the Ministry of Planning and Investment from 1975-1998, Director of Planning Division at MRCS from 1998-2004.

6) Mr. Aloune SAYAVONG (Lao)
National Basin Development Plan Coordinator for Lao PDR. His background is in Civil Engineering, Hydraulic Engineering and River Basin Development. Before joining the LNMCS in 1999, he worked as site engineer for Chapa Agriculture and Construction Campany

7) Mr. Adisak Thongkaimook (Thailand)
Director General of Department of water resources, Secretary general of Thai National Mekong Committee

8) Dr. Chaiyuth Sukhsri (Thailand)

Member of Thai National Mekong Committee, Head of Water Resources Engineering Department, Faculty of Engineer, Chulalongkorn University of Thailand. Technical Advisor, Department of Water Resources, Ministry of Natural Resources and Environment. Member of THAICID, THAI ICOLD, Society for Social Management Systems (Kochi University).and MRC Steering Committees on FMMP, WSP, and IKMP. Current research activities: (1) Optimization and simulation studies of the lower Chao Phraya River Basin; (2) Development of DSS for the Rayong River Basin/Eastern

Seaboard Basin/Bang Pakong River Basin/Department of Water Resources; and (3) Irrigation Development and Water Resources Laws in Thailand. A graduate from Colorado State University, Ft. Collins, CO.

9) Ms. Pakawan Chufamanee (Thailand)
Director, Mekong Affairs Branch, Thai National Mekong Committee Secretariat

10) Mr. Nguyen Hong Toan (Vietnam)
Secretary General of Viet Nam National Mekong Committee, MRC Joint Committee (JC) Member for Viet Nam and Chairman of the MRC JC for the 2007-2008 term. His background is in water resources engineering, with a Masters degree from the International School of Hydrology, Rookee University, India.

11) Mr. Tran Duc Cuong (Vietnam)
Deputy Secretary General of the Vietnam National Mekong Committee and National Coordinator for the BDP Programme in Vietnam since 2000 (BDP phase 1). He has Irrigation and farming system background, and a Masters of Engineering with working experience in water resource planning and irrigation scheme management.

12) Mr. Le Bac Huynh (Vietnam)
Associated Professor, Doctor of Geographic Science from Hydrometeorological Institute, Odessa, Ukraine, Soviet Union. Deputy Director General, Department of Water Resources Management, Ministry of Environment and Natural Resources (MONRE). Before that, Mr. Huynh was the Deputy Director of the Vietnam National Center for Hydrometeorological Forecasting.

13) Dr. Jeremy Bird (British)
Chief Executive Officer, MRC Secretariat. He is a specialist in water resources management from the UK, a Chartered Engineer with postgraduate qualifications in water law and policy with over 25 years of international experience in the water sector

14) Mr. Antonious Lennaerts (Dutch)
Chief Technical Advisor of BDP Programme based in MRCS. His background is in Land and Water Use. Before joining the MRC in June 2007, he worked as the Technical Director of a large water program in Armenia, including management of five Basin Management Organizations and preparation of river basin management plans. He has worked with the World Bank, IWACO B.V Consultants for Water and Environment and other organizations in various countries as a consultant.

15) Ms. Pham Thanh Hang (Vietnamese)
Programme Coordinator, BDP Programme based in MRCS. She has a Masters degree in Economic and Public management. Before joining MRC in August 2007, she worked for more than 10 years with UNDP with focus on natural disaster risk reduction, crisis management, rural development, and poverty reduction.

Appendix B. Some key facts about the Mekong and the MRC

	Mekong River	Columbia River
Location	SE Asia	NW North America
Countries	6	2
Basin Population, million	59	12
Basin %	25% Lao PDR; 23% Thailand; 21% PRD; 20% Cambodia; 8% Viet-Nam; 3% Myanmar	85% US; 15% Canada
Max. Elevation, m	5,224	3,901
Min. Elevation, m	0	0
Mainsteam Elec. Dams	3	14
Typical Annual Power Production, TWh	13	105

- From its source in Tibet, the Mekong River is approximately 4,800 km long and flows through six countries: China Myanmar, Lao PDR, Thailand, Cambodia and Viet Nam.

- Its average annual discharge is 15,000 cubic meters per second.

- The Lower Mekong River Basin (Cambodia, Lao PDR, Thailand and Viet Nam) is home to approximately 60 million people.

- Farmers in the Mekong Basin produce enough rice to feed 300 million people a year. Agriculture employs 85% of the people living in the basin.

- The Mekong River Basin is one of the most productive inland fisheries in the world. The basin provides a wide variety of breeding habitats for over 1300 species of fish. Conservative estimates indicate that basin dwellers eat over one and half million tons of fish per year.

- Total hydropower production capacity in the Lower Mekong Basin is estimated at 30 000 megawatts.

- There are 25 major ports on the Mekong River and except for a 14 km stretch around the Khone Falls near the Lao-Cambodia border, almost the entire length of the river is navigable for nearly 8 months of the year.

- The Great Lake on the Cambodian floodplain is the largest body of fresh water in Southeast Asia and forms one of the key features of the lowlands. During the flood season, water flows from the Mekong mainstream northwest to contribute most of the water that fills the Great Lake. The depth of the Great Lake increases from a dry season

maximum of 3.6 m to more than 10 m, and the area of open water increases from approximately 2,500-3,000 km², to up to 13,000 km². As water levels fall in the Mekong River in October and November, flows into the Great Lake reverse and much of the water flows out and down the Tonle Sap River. Through the dry season, water from the Great Lake continues to supplement the flow of the Mekong, providing some 16 percent of the dry season flow.

- The water of the Mekong is shared by six countries with each contributing a percentage to its flow. See Table 1.

Table 1: Approximate distribution of MRB water resources by country

		Country or Province					
	Yunnan Provice, PRC	Myanmar	Lao PDR	Thailand	Cambodia	Viet Nam	Mekong River Basin
Catchment area as % of MRB	22	3	25	223	19	8	100
Average flow (m3/sec) from area	2410	300	5270	2560	2860	1660	15,060
Average flow as % of total	16	2	35	18	18	11	100

o Since 1995, the MRC works directly under full management responsibility of a Council of Ministers of member countries. It consists of three permanent bodies: a Council that makes policy decisions, a Joint Committee that implements those decisions, and a Secretariat that provides technical and administrative services. The main counterparts for MRC activities in the four member countries are the National Mekong Committees.

o The MRC's focus has shifted from development of large-scale projects to sustainable development and management of natural resources. Member countries have signed sub-agreements on Data and Information Sharing and Exchange, a Flood Management and Mitigation Strategy, and a formal agreement with China on the exchange of hydrological and other data.

o In 1996 China and Myanmar became Dialogue Partners of the MRC and the countries now work together within a cooperation framework. In 2002 the People's Republic of China signed an agreement on providing water level data in the flood season from two stations located on the Upper Mekong in China. This information is fed into the MRC's flood forecasting system. Talks are under way to expand this data sharing agreement to include dry season levels.

o China contributes 16% of the flow of the Mekong River. It has an ambitious development plan for mainstream projects in the headwater areas, and has already built two large run-of-river projects Man Wan Dam, Da Shao Dam, with about 1,500 and 1,350 MW installed capacity respectively, with one more in advance planning.

The following table shows the Mekong River in comparison with several other major rivers in the world.

River	Length [km]	Drainage area [km^2]	Total annual runoff	
			[km^3]	[mm]
Nile	6,825	3,112,000	84	27
Amazon	6,700	7,050,000	5,518	728
Congo river	4,700	3,820,000	1,248	326
Mekong	4,200	975,000	470	590
Niger	4,100	2,274,000	177	78
Zambezi	2,700	1,200,000	223	185
Rhine	1,320	224,000	70	312
Mississippi	970	3,270,000	562	170