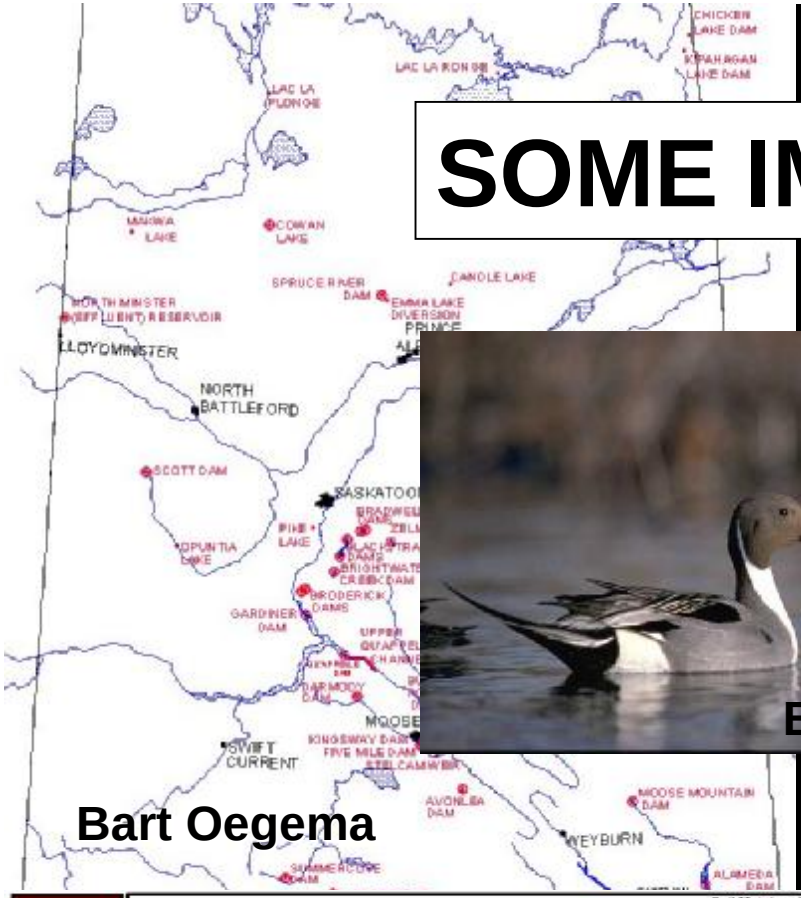
A NETWORK MANAGER'S PERSPECTIVE ON DRI

RICK LAWFORD
PFRA WORKSHOP
JANUARY 10, 2007

What drives drought interest?

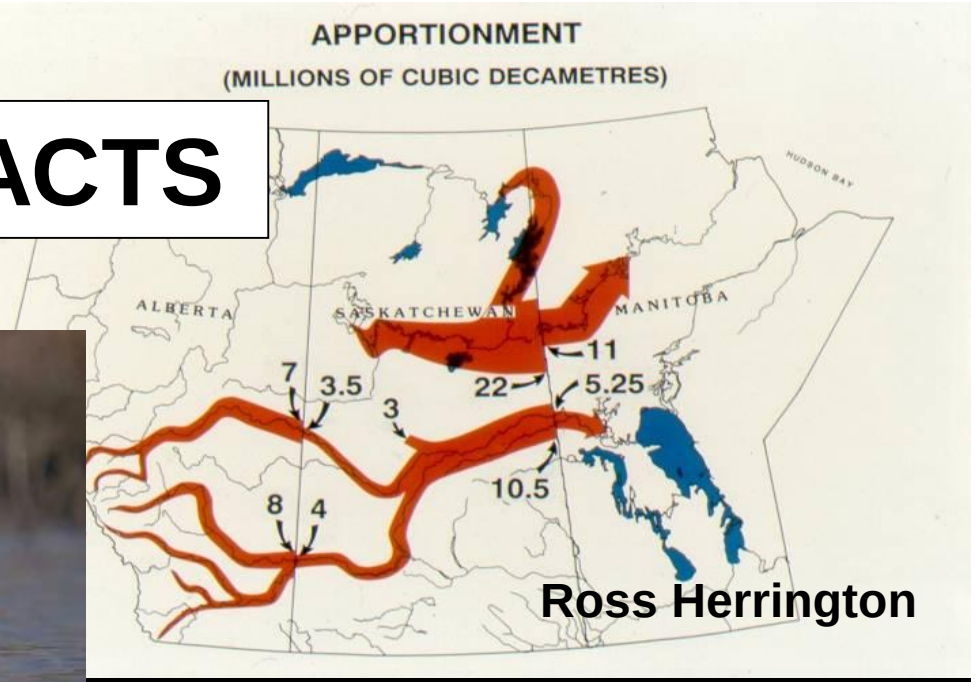
Answer: Public Opinion

SOME IMPACTS

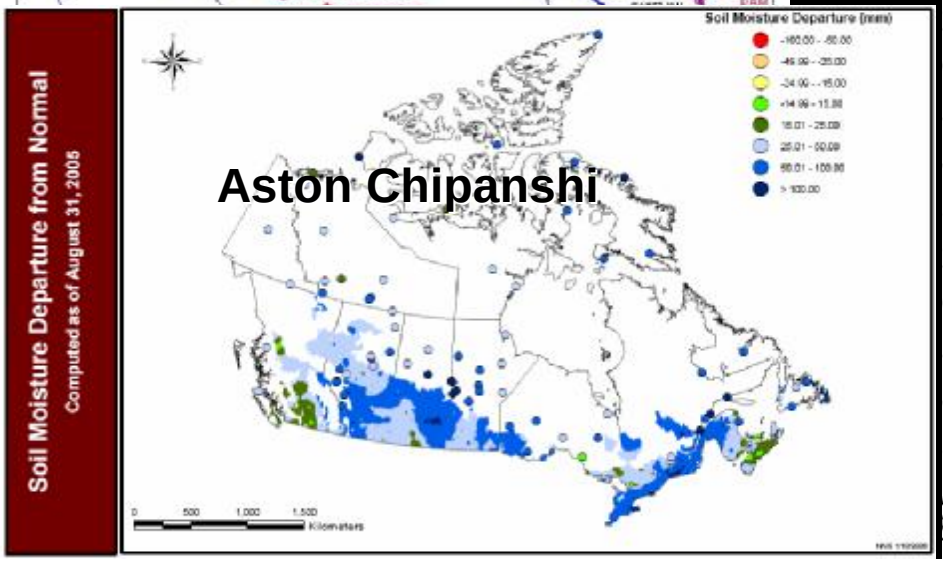


Bart Oegema

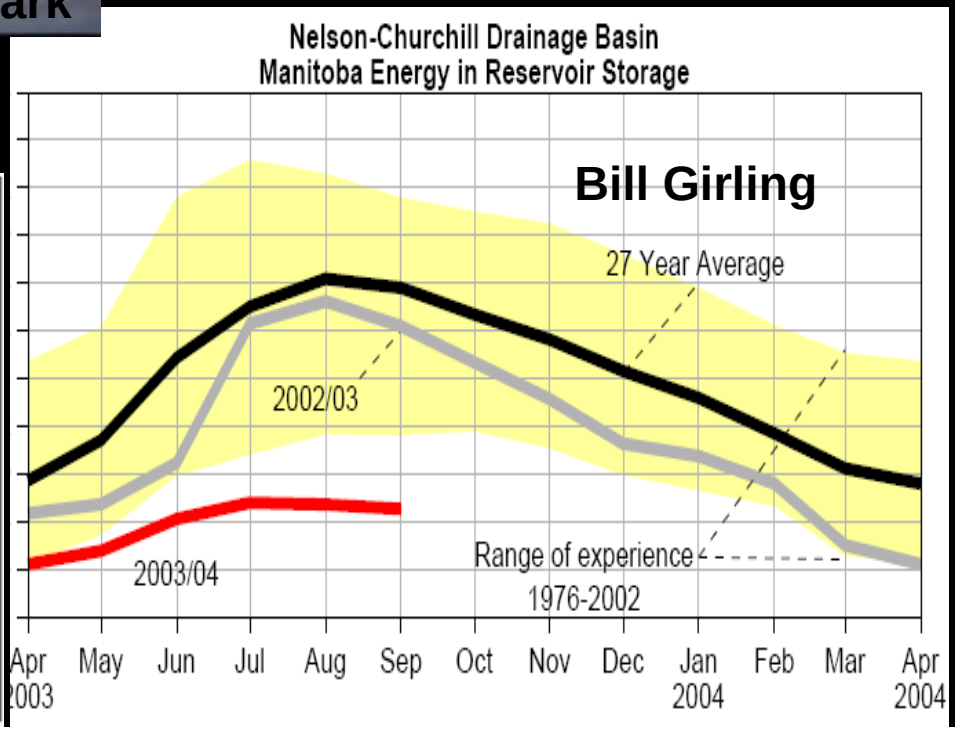
Bob Clark



Ross Herrington



Aston Chipanshi



Bill Girling

THE DRI TEAM

- **Co-leads:**
  John Pomeroy (*Sask*) and Ron Stewart (*McGill*)

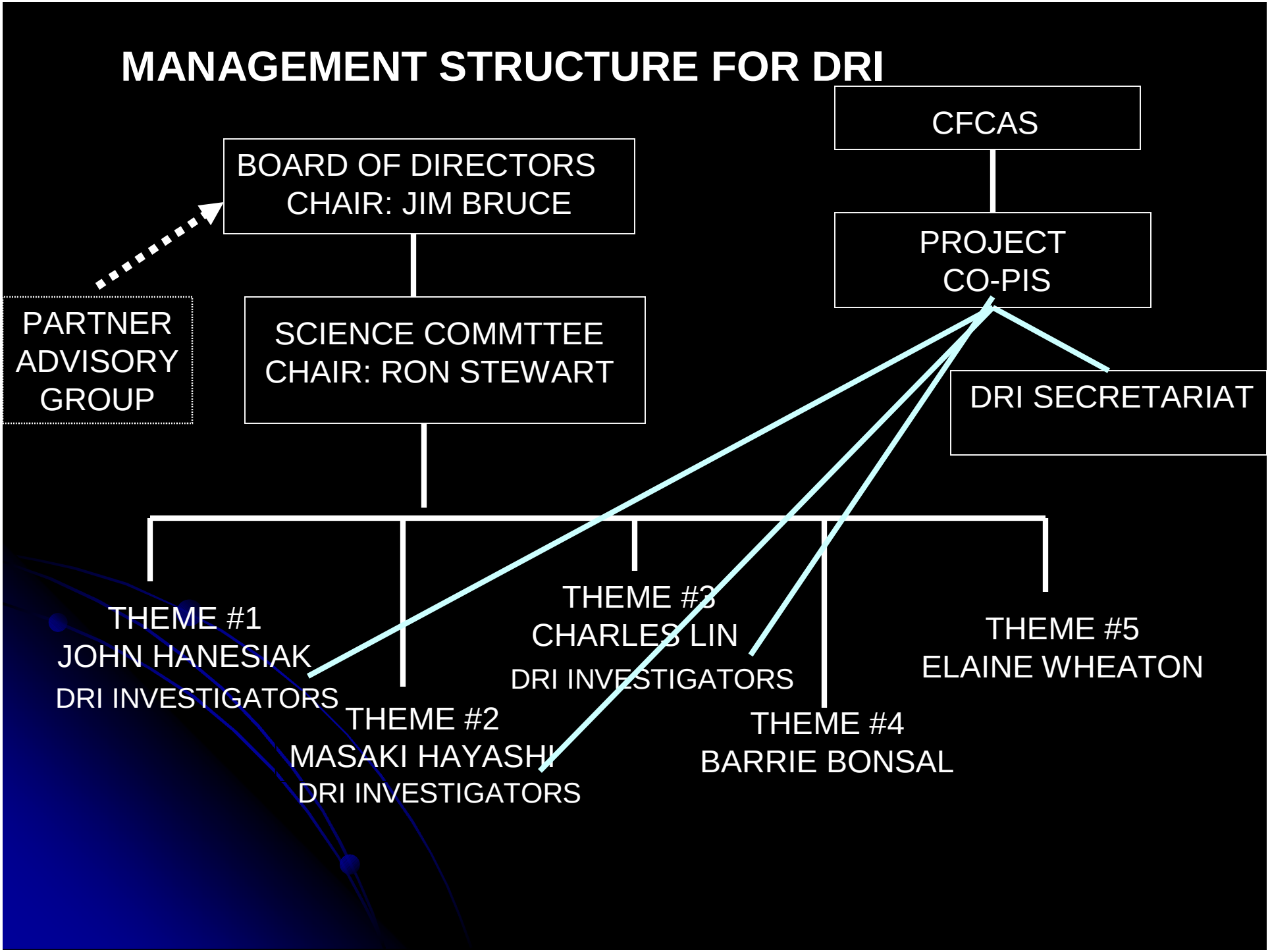
- **Investigators (14):**
  Bonsal (*Sask/NHRC*), Bullock (*Man*), Gyakum (*McGill*), Hanesiak (*Man*), Hayashi (*Calg*), Leighton (*McGill*), Lin (*McGill*), Pietroniro (*Sask/NHRC*), Snelgrove (*Man*), Strong (*Alta*), van der Kamp (*Sask/NHRC*), Wheaton (*Sask/SRC*), Woodbury (*Man*)

- **Collaborators (12):**
  Boer (*MSC*), Caya (*Ouranos*), Derome (*McGill*), Donaldson (*MSC*), Granger (*NHRC*), Martz (*Sask*), Raddatz (*MSC*), Ritchie (*MSC*), Shabbar (*MSC*), Sills (*MSC*), Szeto (*MSC*)

- **Information Management: Matt Regier, Patrice Constanza**
- **Network Manager: Rick Lawford**

- **Nationally and internationally recognized co-leaders**
- **Strong scientists**
- **Research expertise covers critical areas for DRI**
- **Solid track record of working together as well as being in and leading networks!**

MANAGEMENT STRUCTURE FOR DRI



DRI ADDRESSES CFCAS GOALS FOR TRAINING

	Current (Jan 2007)	Planned (06-07 budget)
PDFs		7
PhD		2
Masters		8
Undergrad		3

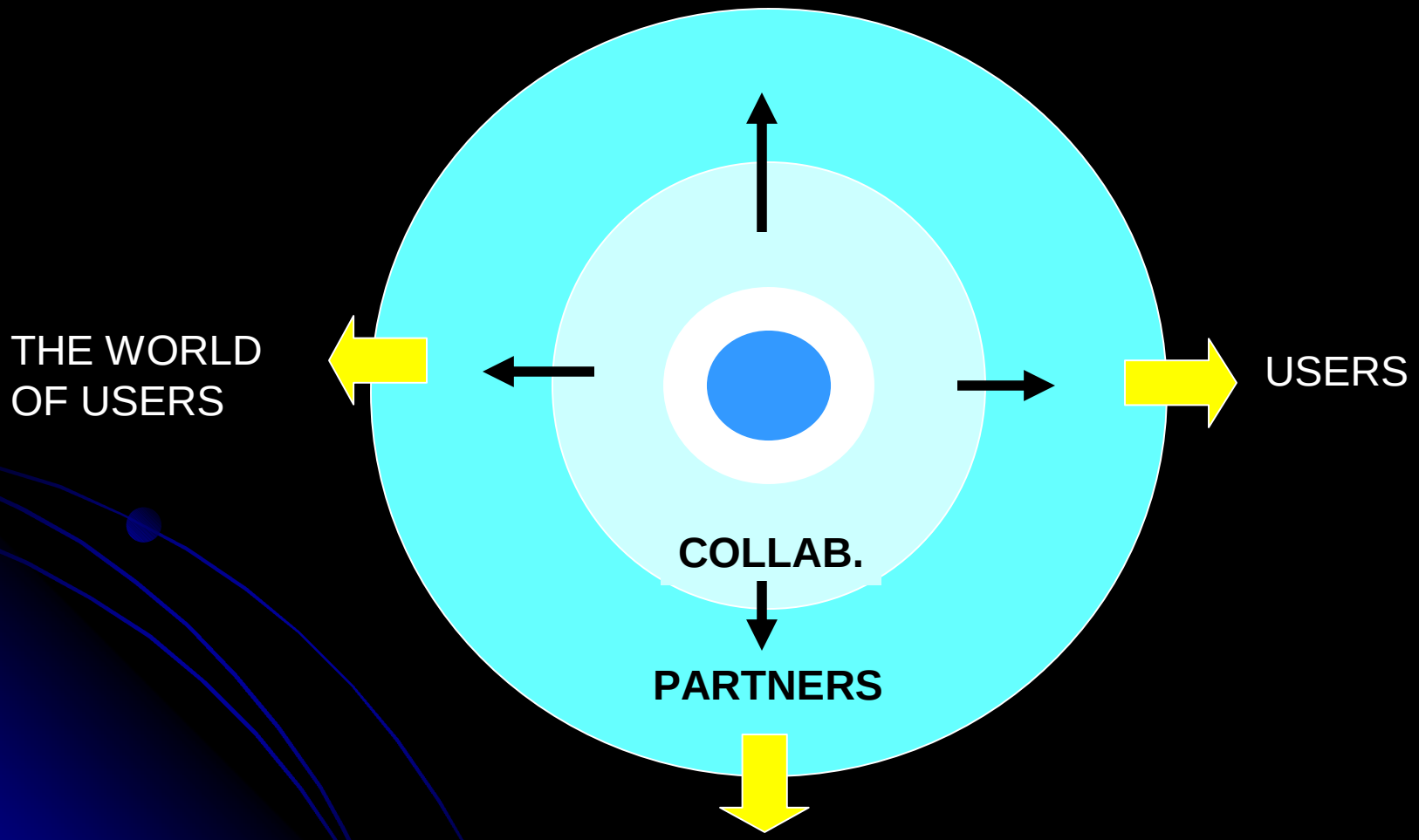
Why DRI now?

- The 1999-2004 drought was one of the worst natural disasters that Canada has ever suffered.
- Recent convergence of modelling and observational technologies
- Crucial to be better prepared for the next drought period

Salt storm in reservoir, Alberta, April 2004

Drifting soil in fields, Saskatchewan, April 2002

DRI IS WORKING ON BUILDING ITS LINKS WITH COLLABORATORS SO THEY WILL ADDRESS PROBLEMS AS A SEAMLESS TEAM.
DRI WANTS TO STRENGTHEN ITS LINKS WITH PARTNERS WHOM IT SEES AS THE PRINCIPAL INTERFACE WITH THE WORLD OF USERS.



THE NETWORK MANAGER INTERACTS WITH STAKEHOLDERS

Good dialogue has been established with:

- PFRA, Agriculture and Agri-Food Canada
- Manitoba Hydro
- Manitoba Water Stewardship
- Saskatchewan Research Council

More stakeholders will be added to this list in the coming months

IMPORTANT QUESTIONS FROM THE PARTNERS:

1. HOW DO WE KNOW THE 1999-2004 DROUGHT WAS REPRESENTATIVE OF OTHER DROUGHTS THIS CENTURY?

2. HOW FREQUENT ARE HIGH IMPACT DROUGHTS WHEN YOU USE OUR (E.G. MANITOBA HYDRO) CRITERIA FOR A DROUGHT?

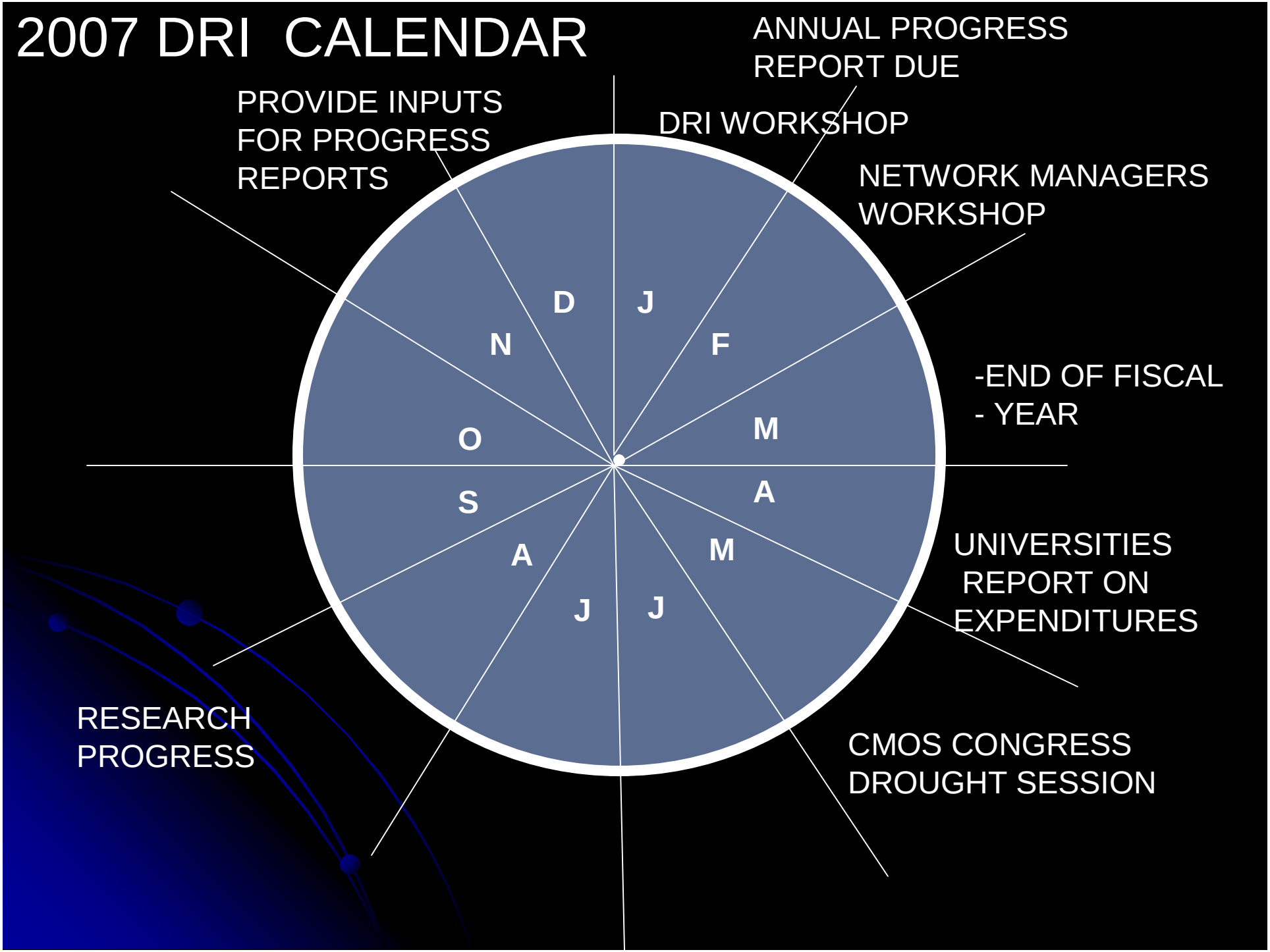
3. HOW CAN DRI CHARACTERIZE THE GRADIENT OF DROUGHT PROCESSES THAT OCCUR ACROSS THE CANADIAN PRAIRIES?

4. HOW WILL EVAPOTRANSPIRATION CHANGE IN A WARMER CLIMATE AND HOW WILL DROUGHT PROCESSES BE AFFECTED?

5. HOW DO OUR RESPONSES TO DROUGHT AFFECT THE IMPACTS OF SUBSEQUENT DROUGHTS?

6. HOW WILL THE WORK OF DRI LINK TO CLIMATE CHANGE INITIATIVES?

2007 DRI CALENDAR



SOME EXTERNAL QUESTIONS

SHOULD WE BE PLANNING FOR A FOLLOWON TO DRI AND WHAT SHOULD THE STRUCTURE OF THIS FOLLOW ON BE?

TO WHAT EXTENT SHOULD WE MOBILIZE THE EXTENSIVE DATA, INFORMATION AND MODELING CAPABILITIES IN THE USA? WHAT TERMS OF REFERENCE SHOULD CONSIDER COLLABORATIVE RESEARCH EFFORTS?

SOME INTERNAL QUESTIONS

HOW CAN WE BRING PARTNERS INTO THE PROJECT IN A MORE INTEGRAL WAY?

CAN WE SHARPEN UP THE OBJECTIVES AND MILESTONES AND USE THEM MORE EXPLICITLY IN MAKING DECISIONS ABOUT FUNDING, ETC.?

HOW SHOULD WE ALLOCATE OUR RESOURCES OVER THE NEXT THREE YEARS TO ENSURE WE CONTIRBUTE TO EACH THEME IN A TIMELY WAY?

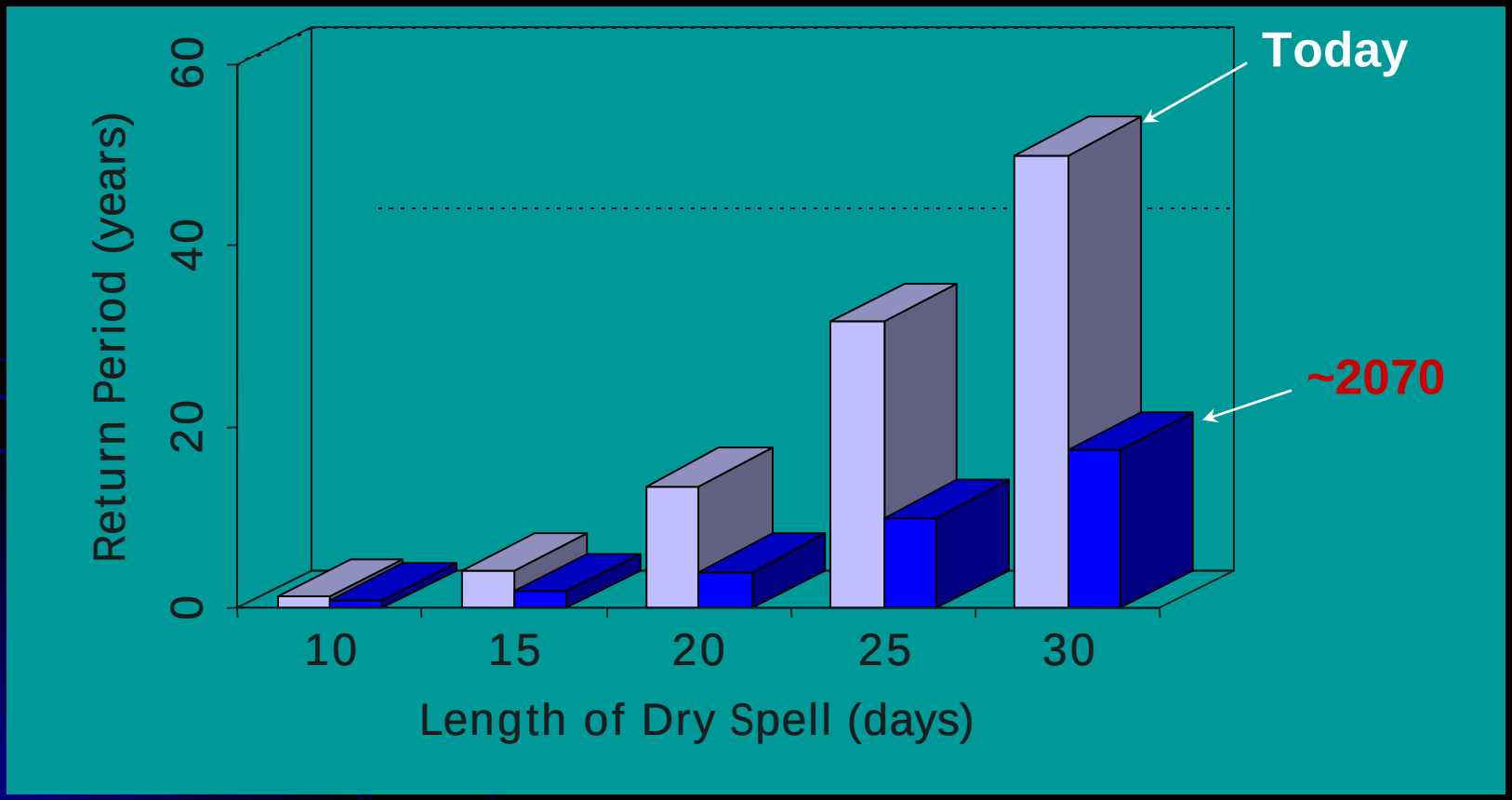
CAN WE RAISE THE VISIBILITY FROM DRI PROJECTS TO INCREASE THE IMPACT THAT DRI HAS ON POLICY?

HOW ARE WE GOING TO MEET OUR OBJECTIVES IN 2010 AT THE CURRENT RATE OF PROGRESS?

DROUGHT IS AN ISSUE WITH GROWTH POTENTIAL

The frequency and severity of droughts are likely to increase in southern Canada

Central North America



Gregory et al., 1997

DROUGHT STUDIES WITH POLICY IMPLICATIONS

PAUL BULLOCK: RELATING CLIMATE TO THE PRODUCTIVITY OF DIFFERENT CROPS.

MASAKI HAYASHI AND JOHN POMEROY: DOCUMENTING THE PROCESSES DRIVING THE RESPONSE OF SURFACE HYDORLOGY TO DROUGHT.

AL WOODBURY AND KEN SNELGROVE: ASSESSING THE CONSEQUENCS OR DROUGHT FOR GROUNDWATER RESERVES.

BARRIE BONSAL AND ELAINE WHEATON: DOCUMENTING THE PHYSICAL AND IMPACT CONTEXTS FOR THE 1999- 2004 DROUGHT.

HOW CAN WE BUILD ON THESE?