



World Class Irrigation in the GMID

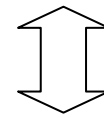
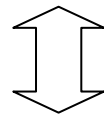
Supply System and On-farm
Infrastructure

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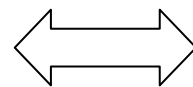


The Drivers for Infrastructure

Service Needs



Supply System



Farm System



Service Needs ?

- Improved water control
 - Precise application: rates/locations
 - Sophisticated irrigation scheduling
- Improved flexibility
 - Shorter order times
 - Stop/restart/vary/extend deliveries
- Flows
 - High rate application over shorter periods; or
 - Frequent low rate applications



Service Needs ?

- Conjunctive use of g'water/recycled water
- Less irrigated areas
- Different farming systems
 - Hot houses, shade cloth covers
 - Cut & carry, feedlots



On-farm

- On farm automation
 - Integrated fertigation
 - Sensor controlled
- Irrigation techniques
 - Sub-surface drip
 - Low pressure spray (centre pivot)
 - Low pressure drip or microspray
 - surge flow flood irrigation



On-farm cont...

- On-farm storages
 - Drainage/recycling/groundwater
- Flexible farming systems
- Multiple irrigation systems
 - “Permanent” irrigation areas
 - opportunistic areas
- Risk based planning and decision making



Supply System

- Open channels
 - Trunks /carriers (larger flows)
 - Lined: clay or impervious membranes
 - Continue to maximise gravity supply
- Pipelines
 - For high loss soils, lower volumes, higher value crops
 - Maybe pressurised
 - HDPE or new thin wall, flexible materials



Supply System cont..

- Automated regulators
- Accurate meters with real time information on deliveries
- Smart control
 - Regulators and meters linked to central computer
 - Data feeds short and medium term demand forecasting systems
- In system storages.



Linkage of farm and supply system automation

- “Seamless” control/flow management
- Data exchange
 - Weather data; Usage/ application data
 - Irrigation scheduling plan data
- System optimisation
 - Shutdowns
 - System & farm storages “linkage”