

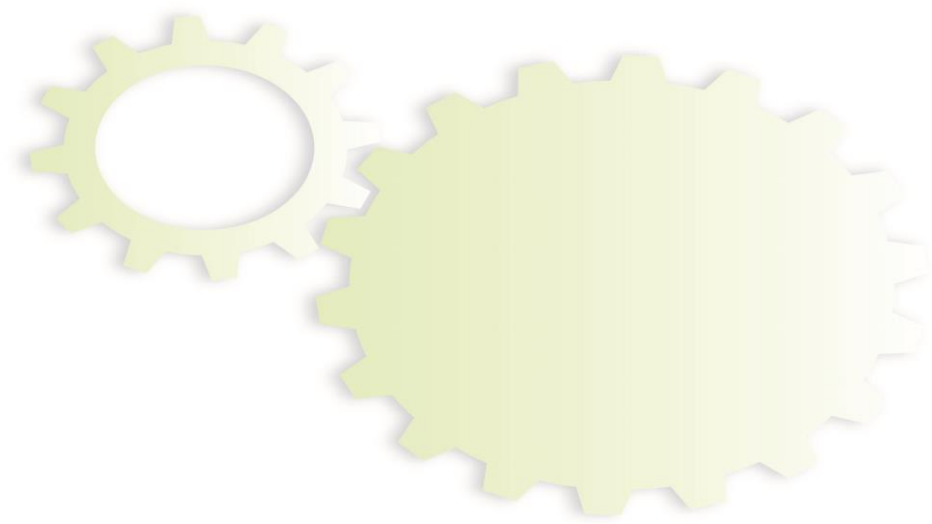
City vs. Mother Nature



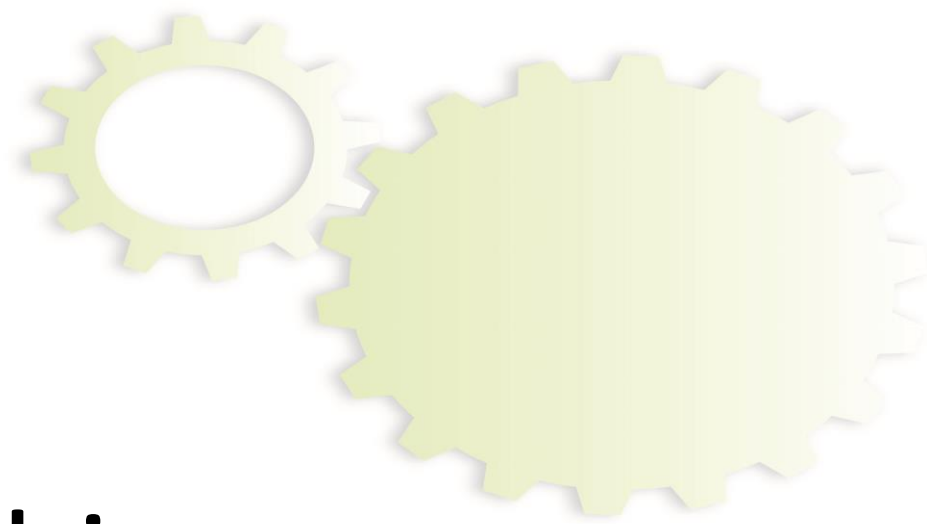
Fredericton
OUR TRADITION IS INNOVATION

Things that happen occasionally...

- Budget
- Special Events
- Hiring summer students
- Floods
- Other natural (or unnatural) events



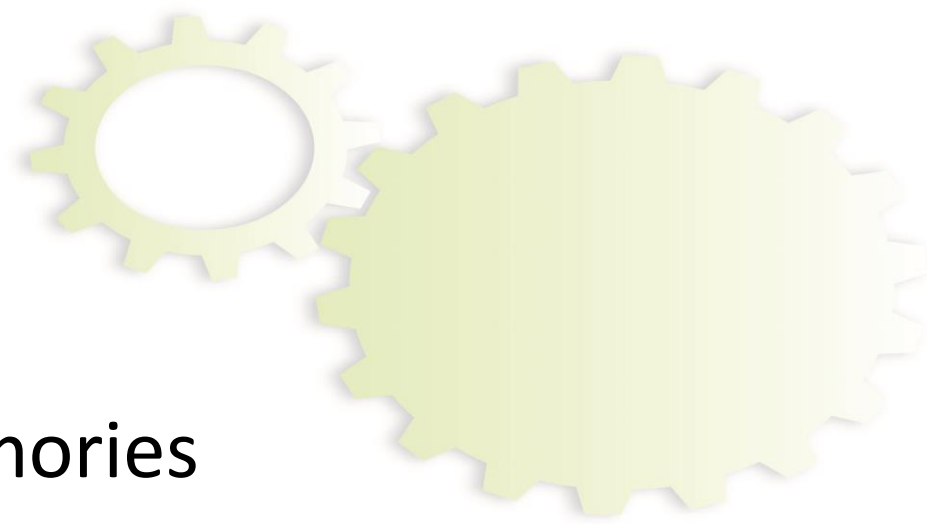
What we strive for:



Don't do something
for the first time
more than once



What do we typically do?



- Rely on previous experiences and memories
- We're really good at working it out "on the fly"
- People have different opinions to offer
- People are willing to help where needed
- Have individual Work Instructions, but not an overall workflow map



This leads to...



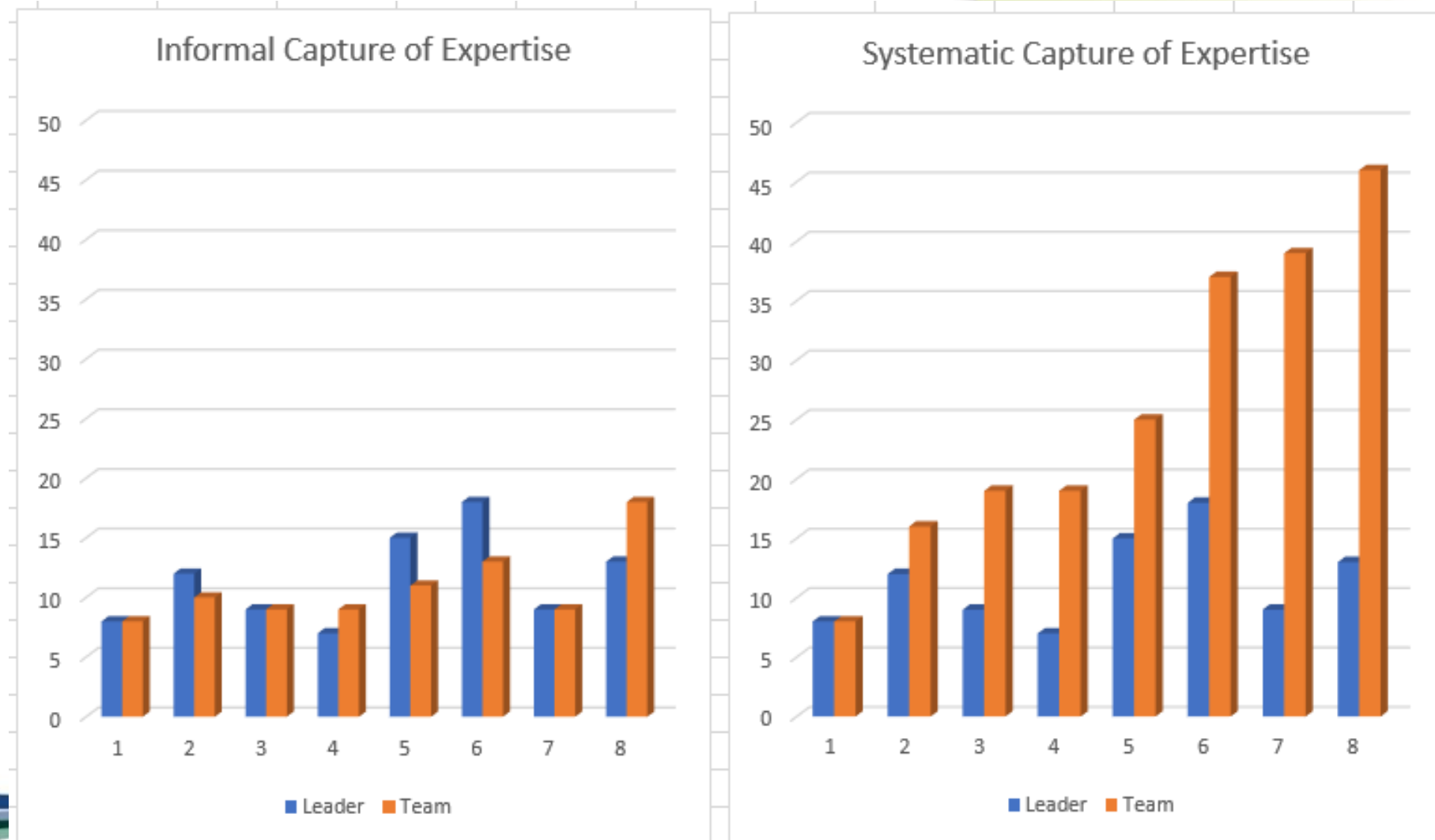
1. Inconsistency and uncertainty in who is doing what, when
2. “Surprise” but people “Should have known”
3. High Risk of “loss of expertise” as people retire or leave



Do we compound our expertise?

- Blue represents the Leader's level of expertise,
- Orange represents the Team's collective expertise

→ The Blue is the same for both graphs (same leaders), but the Team's collective experience rises significantly with a systematic capture of expertise of the group

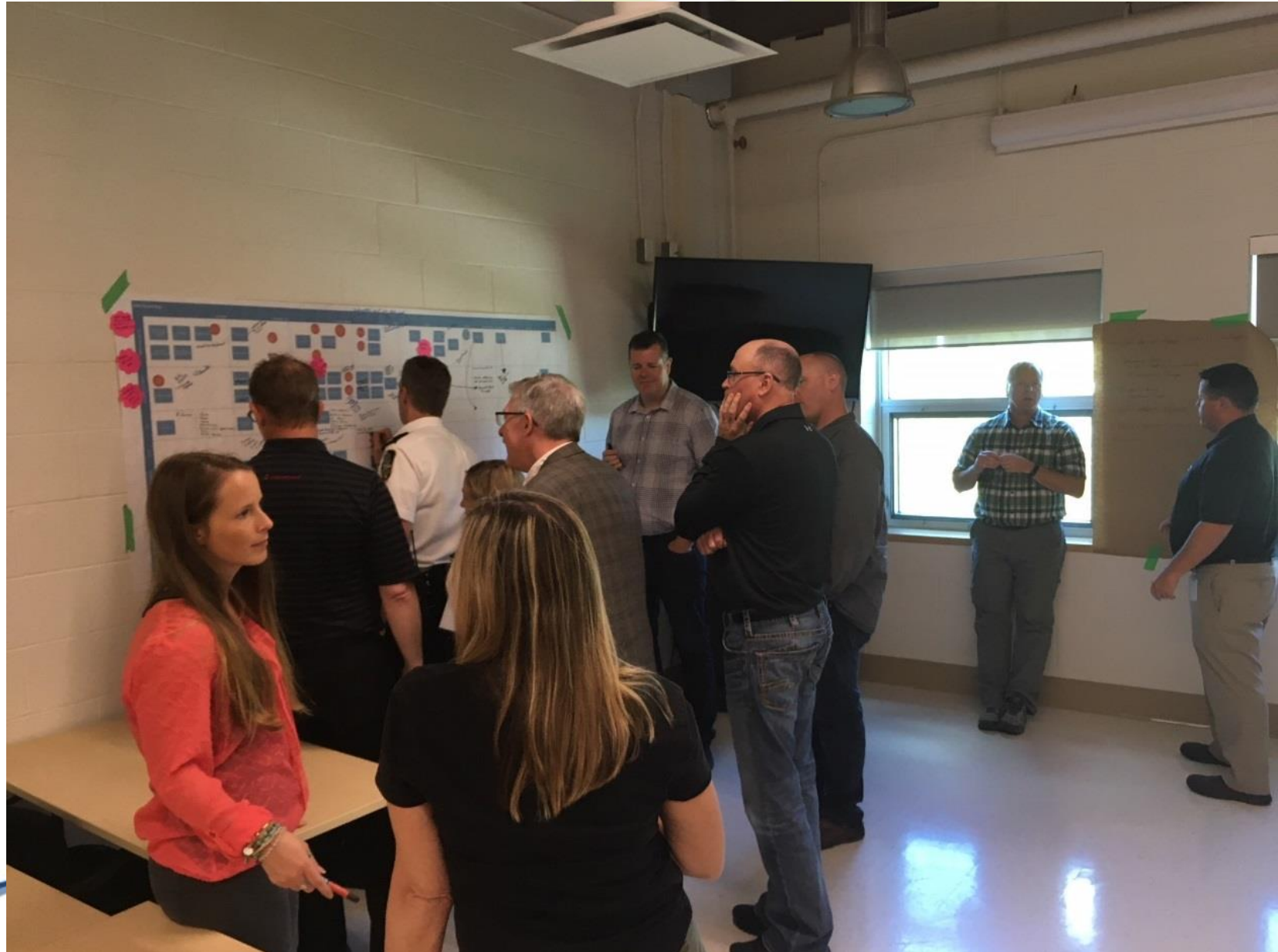


The Flood of 2018



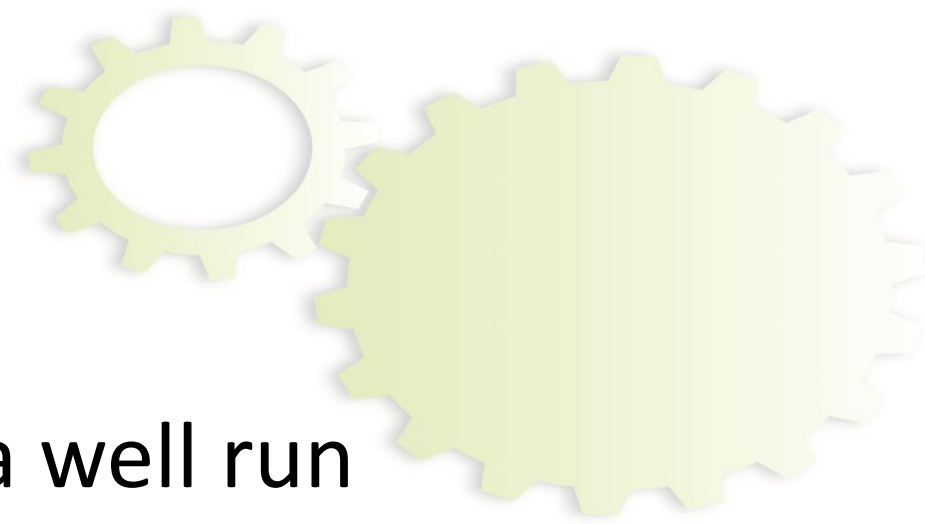
We pulled a team together

- Internal staff
- NB Power
- GNB EMO
- Amateur Radio Club
- Red Cross
- Salvation Army
- Others



The Team's Objective:

- Capture the expertise from a well run operation (Flood 2018), to be able to reapply it in future flood events
- Perform the same analysis for other events – ice storms, hurricanes, long-term power outages, a pandemic, ...



Flood Playbook 2018

EMO Flood Map																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Pre Flood		Forecast > 6.5										7.1 return covered		7.2m		8.5m		9.0m		Recovery General		Recovery 8.5-7.5		Recovery 7.5-7.2		Recovery 7.2-6.5		Recovery < 6.5																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Significant activities affected		Inundation and water level left at baseline level at 6.5m and 7.2m at the same location		Major road network (A10, A1)				Lifted				T1 Bridge		T2a to T2b's Point Drive		T3 to T4's Point Drive		T5 to T6's Point Drive		T7 to T8's Point Drive		T9 to T10's Point Drive		T11 to T12's Point Drive		T13 to T14's Point Drive		T15 to T16's Point Drive		T17 to T18's Point Drive		T19 to T20's Point Drive		T21 to T22's Point Drive		T23 to T24's Point Drive		T25 to T26's Point Drive		T27 to T28's Point Drive		T29 to T30's Point Drive		T31 to T32's Point Drive		T33 to T34's Point Drive		T35 to T36's Point Drive		T37 to T38's Point Drive		T39 to T40's Point Drive		T41 to T42's Point Drive		T43 to T44's Point Drive		T45 to T46's Point Drive		T47 to T48's Point Drive		T49 to T50's Point Drive		T51 to T52's Point Drive		T53 to T54's Point Drive		T55 to T56's Point Drive		T57 to T58's Point Drive		T59 to T60's Point Drive		T61 to T62's Point Drive		T63 to T64's Point Drive		T65 to T66's Point Drive		T67 to T68's Point Drive		T69 to T70's Point Drive		T71 to T72's Point Drive		T73 to T74's Point Drive		T75 to T76's Point Drive		T77 to T78's Point Drive		T79 to T80's Point Drive		T81 to T82's Point Drive		T83 to T84's Point Drive		T85 to T86's Point Drive		T87 to T88's Point Drive		T89 to T90's Point Drive		T91 to T92's Point Drive		T93 to T94's Point Drive		T95 to T96's Point Drive		T97 to T98's Point Drive		T99 to T100's Point Drive		T101 to T102's Point Drive		T103 to T104's Point Drive		T105 to T106's Point Drive		T107 to T108's Point Drive		T109 to T110's Point Drive		T111 to T112's Point Drive		T113 to T114's Point Drive		T115 to T116's Point Drive		T117 to T118's Point Drive		T119 to T120's Point Drive		T121 to T122's Point Drive		T123 to T124's Point Drive		T125 to T126's Point Drive		T127 to T128's Point Drive		T129 to T130's Point Drive		T131 to T132's Point Drive		T133 to T134's Point Drive		T135 to T136's Point Drive		T137 to T138's Point Drive		T139 to T140's Point Drive		T141 to T142's Point Drive		T143 to T144's Point Drive		T145 to T146's Point Drive		T147 to T148's Point Drive		T149 to T150's Point Drive		T151 to T152's Point Drive		T153 to T154's Point Drive		T155 to T156's Point Drive		T157 to T158's Point Drive		T159 to T160's Point Drive		T161 to T162's Point Drive		T163 to T164's Point Drive		T165 to T166's Point Drive		T167 to T168's Point Drive		T169 to T170's Point Drive		T171 to T172's Point Drive		T173 to T174's Point Drive		T175 to T176's Point Drive		T177 to T178's Point Drive		T179 to T180's Point Drive		T181 to T182's Point Drive		T183 to T184's Point Drive		T185 to T186's Point Drive		T187 to T188's Point Drive		T189 to T190's Point Drive		T191 to T192's Point Drive		T193 to T194's Point Drive		T195 to T196's Point Drive		T197 to T198's Point Drive		T199 to T200's Point Drive		T201 to T202's Point Drive		T203 to T204's Point Drive		T205 to T206's Point Drive		T207 to T208's Point Drive		T209 to T210's Point Drive		T211 to T212's Point Drive		T213 to T214's Point Drive		T215 to T216's Point Drive		T217 to T218's Point Drive		T219 to T220's Point Drive		T221 to T222's Point Drive		T223 to T224's Point Drive		T225 to T226's Point Drive		T227 to T228's Point Drive		T229 to T230's Point Drive		T231 to T232's Point Drive		T233 to T234's Point Drive		T235 to T236's Point Drive		T237 to T238's Point Drive		T239 to T240's Point Drive		T241 to T242's Point Drive		T243 to T244's Point Drive		T245 to T246's Point Drive		T247 to T248's Point Drive		T249 to T250's Point Drive		T251 to T252's Point Drive		T253 to T254's Point Drive		T255 to T256's Point Drive		T257 to T258's Point Drive		T259 to T260's Point Drive		T261 to T262's Point Drive		T263 to T264's Point Drive		T265 to T266's Point Drive		T267 to T268's Point Drive		T269 to T270's Point Drive		T271 to T272's Point Drive		T273 to T274's Point Drive		T275 to T276's Point Drive		T277 to T278's Point Drive		T279 to T280's Point Drive		T281 to T282's Point Drive		T283 to T284's Point Drive		T285 to T286's Point Drive		T287 to T288's Point Drive		T289 to T290's Point Drive		T291 to T292's Point Drive		T293 to T294's Point Drive		T295 to T296's Point Drive		T297 to T298's Point Drive		T299 to T300's Point Drive		T301 to T302's Point Drive		T303 to T304's Point Drive		T305 to T306's Point Drive		T307 to T308's Point Drive		T309 to T310's Point Drive		T311 to T312's Point Drive		T313 to T314's Point Drive		T315 to T316's Point Drive		T317 to T318's Point Drive		T319 to T320's Point Drive		T321 to T322's Point Drive		T323 to T324's Point Drive		T325 to T326's Point Drive		T327 to T328's Point Drive		T329 to T330's Point Drive		T331 to T332's Point Drive		T333 to T334's Point Drive		T335 to T336's Point Drive		T337 to T338's Point Drive		T339 to T340's Point Drive		T341 to T342's Point Drive		T343 to T344's Point Drive		T345 to T346's Point Drive		T347 to T348's Point Drive		T349 to T350's Point Drive		T351 to T352's Point Drive		T353 to T354's Point Drive		T355 to T356's Point Drive		T357 to T358's Point Drive		T359 to T360's Point Drive		T361 to T362's Point Drive		T363 to T364's Point Drive		T365 to T366's Point Drive		T367 to T368's Point Drive		T369 to T370's Point Drive		T371 to T372's Point Drive		T373 to T374's Point Drive		T375 to T376's Point Drive		T377 to T378's Point Drive		T379 to T380's Point Drive		T381 to T382's Point Drive		T383 to T384's Point Drive		T385 to T386's Point Drive		T387 to T388's Point Drive		T389 to T390's Point Drive		T391 to T392's Point Drive		T393 to T394's Point Drive		T395 to T396's Point Drive		T397 to T398's Point Drive		T399 to T400's Point Drive		T401 to T402's Point Drive		T403 to T404's Point Drive		T405 to T406's Point Drive		T407 to T408's Point Drive		T409 to T410's Point Drive		T411 to T412's Point Drive		T413 to T414's Point Drive		T415 to T416's Point Drive		T417 to T418's Point Drive		T419 to T420's Point Drive		T421 to T422's Point Drive		T423 to T424's Point Drive		T425 to T426's Point Drive		T427 to T428's Point Drive		T429 to T430's Point Drive		T431 to T432's Point Drive		T433 to T434's Point Drive		T435 to T436's Point Drive		T437 to T438's Point Drive		T439 to T440's Point Drive		T441 to T442's Point Drive		T443 to T444's Point Drive		T445 to T446's Point Drive		T447 to T448's Point Drive		T449 to T450's Point Drive		T451 to T452's Point Drive		T453 to T454's Point Drive		T455 to T456's Point Drive		T457 to T458's Point Drive		T459 to T460's Point Drive		T461 to T462's Point Drive		T463 to T464's Point Drive		T465 to T466's Point Drive		T467 to T468's Point Drive		T469 to T470's Point Drive		T471 to T472's Point Drive		T473 to T474's Point Drive		T475 to T476's Point Drive		T477 to T478's Point Drive		T479 to T480's Point Drive		T481 to T482's Point Drive		T483 to T484's Point Drive		T485 to T486's Point Drive		T487 to T488's Point Drive		T489 to T490's Point Drive		T491 to T492's Point Drive		T493 to 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Drive		T707 to T708's Point Drive		T709 to T710's Point Drive		T711 to T712's Point Drive		T713 to T714's Point Drive		T715 to T716's Point Drive		T717 to T718's Point Drive		T719 to T720's Point Drive		T721 to T722's Point Drive		T723 to T724's Point Drive		T725 to T726's Point Drive		T727 to T728's Point Drive		T729 to T730's Point Drive		T731 to T732's Point Drive		T733 to T734's Point Drive		T735 to T736's Point Drive		T737 to T738's Point Drive		T739 to T740's Point Drive		T741 to T742's Point Drive		T743 to T744's Point Drive		T745 to T746's Point Drive		T747 to T748's Point Drive		T749 to T750's Point Drive		T751 to T752's Point Drive		T753 to T754's Point Drive		T755 to T756's Point Drive		T757 to T758's Point Drive		T759 to T760's Point Drive		T761 to T762's Point Drive		T763 to T764's Point Drive		T765 to T766's Point Drive		T767 to T768's Point Drive		T769 to T770's Point Drive		T771 to T772's Point Drive		T773 to T774's Point Drive		T775 to T776's Point Drive		T777 to 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Drive		T849 to T850's Point Drive		T851 to T852's Point Drive		T853 to T854's Point Drive		T855 to T856's Point Drive		T857 to T858's Point Drive		T859 to T860's Point Drive		T861 to T862's Point Drive		T863 to T864's Point Drive		T865 to T866's Point Drive		T867 to T868's Point Drive		T869 to T870's Point Drive		T871 to T872's Point Drive		T873 to T874's Point Drive		T875 to T876's Point Drive		T877 to T878's Point Drive		T879 to T880's Point Drive		T881 to T882's Point Drive		T883 to T884's Point Drive		T885 to T886's Point Drive		T887 to T888's Point Drive		T889 to T890's Point Drive		T891 to T892's Point Drive		T893 to T894's Point Drive		T895 to T896's Point Drive		T897 to T898's Point Drive		T899 to T900's Point Drive		T901 to T902's Point Drive		T903 to T904's Point Drive		T905 to T906's Point Drive		T907 to T908's Point Drive		T909 to T910's Point Drive		T911 to T912's Point Drive		T913 to T914's Point Drive		T915 to T916's Point Drive		T917 to T918's Point Drive		T919 to T920's Point Drive		T921 to T922's Point Drive		T923 to T924's Point Drive		T925 to T926's Point Drive		T927 to T928's Point Drive		T929 to T930's Point Drive		T931 to T932's Point Drive		T933 to T934's Point Drive		T935 to T936's Point Drive		T937 to T938's Point Drive		T939 to T940's Point Drive		T941 to T942's Point Drive		T943 to T944's Point Drive		T945 to T946's Point Drive		T947 to T948's Point Drive		T949 to T950's Point Drive		T951 to T952's Point Drive		T953 to T954's Point Drive		T955 to T956's Point Drive		T957 to T958's Point Drive		T959 to T960's Point Drive		T961 to T962's Point Drive		T963 to T964's Point Drive		T965 to T966's Point Drive		T967 to T968's Point Drive		T969 to T970's Point Drive		T971 to T972's Point Drive		T973 to T974's Point Drive		T975 to T976's Point Drive		T977 to T978's Point Drive		T979 to T980's Point Drive		T981 to T982's Point Drive		T983 to T984's Point Drive		T985 to T986's Point Drive		T987 to T988's Point Drive		T989 to T990's Point Drive		T991 to T992's Point Drive		T993 to T994's Point Drive		T995 to T996's Point Drive		T997 to T998's Point Drive		T999 to T1000's Point Drive		T1001 to T1002's Point Drive		T1003 to T1004's Point Drive		T1005 to T1006's Point Drive		T1007 to T1008's Point Drive		T1009 to T1010's Point Drive		T1011 to T1012's Point Drive		T1013 to T1014's Point Drive		T1015 to T1016's Point Drive		T1017 to T1018's Point Drive		T1019 to T1020's Point Drive		T1021 to T1022's Point Drive		T1023 to T1024's Point Drive		T1025 to T1026's Point Drive		T1027 to T1028's Point Drive		T1029 to T1030's Point Drive		T1031 to T1032's Point Drive		T1033 to T1034's Point Drive		T1035 to T1036's Point Drive		T1037 to T1038's Point Drive		T1039 to T1040's Point Drive		T1041 to T1042's Point Drive		T1043 to T1044's Point Drive		T1045 to T1046's Point Drive		T1047 to T1048's Point Drive		T1049 to T1050's Point Drive		T1051 to T1052's Point Drive		T1053 to T1054's Point Drive		T1055 to T1056's Point Drive		T1057 to T1058's Point Drive		T1059 to T1060's Point Drive		T1061 to T1062's Point Drive		T1063 to T1064's Point Drive		T1065 to T1066's Point Drive		T1067 to T1068's Point Drive		T1069 to T1070's Point Drive		T1071 to T1072's Point Drive		T1073 to T1074's Point Drive		T1075 to T1076's Point Drive		T1077 to T1078's Point Drive		T1079 to T1080's Point Drive		T1081 to T1082's Point Drive		T1083 to T1084's Point Drive		T1085 to T1086's Point Drive		T1087 to T1088's Point Drive		T1089 to T1090's Point Drive		T1091 to T1092's Point Drive		T1093 to T1094's Point Drive		T1095 to T1096's Point Drive		T1097 to T1098's Point Drive		T1099 to T1100's Point Drive		T1101 to T1102's Point Drive		T1103 to T1104's Point Drive		T1105 to T1106's Point Drive		T1107 to T1108's Point Drive		T1109 to T1110's Point Drive		T1111 to T1112's Point Drive		T1113 to T1114's Point Drive		T1115 to T1116's Point Drive		T1117 to T1118's Point Drive		T1119 to T1120's Point Drive		T1121 to T1122's Point Drive		T1123 to T1124's Point Drive		T1125 to T1126's Point Drive		T1127 to T1128's Point Drive		T1129 to T1130's Point Drive		T1131 to T1132's Point Drive		T1133 to T1134's Point Drive		T1135 to T1136's Point Drive		T1137 to T1138's Point Drive		T1139 to T1140's Point Drive		T1141 to T1142's Point Drive		T1143 to T1144's Point Drive		T1145 to T1146's Point Drive		T1147 to T1148's Point Drive		T1149 to T1150's Point Drive		T1151 to T1152's Point Drive		T1153 to T1154's Point Drive		T1155 to T1156's Point Drive		T1157 to T1158's Point Drive		T1159 to T1160's Point Drive		T1161 to T1162's Point Drive		T1163 to T1164's Point Drive		T1165 to T1166's Point Drive		T1167 to T1168's Point Drive		T1169 to T1170's Point Drive		T1171 to T1172's Point Drive		T1173 to T1174's Point Drive		T1175 to T1176's Point Drive		T1177 to T1178's Point Drive		T1179 to T1180's Point Drive		T1181 to T1182's Point Drive		T1183 to T1184's Point Drive		T1185 to T1186's Point Drive		T1187 to T1188's Point Drive		T1189 to T1190's Point Drive		T1191 to T1192's Point Drive		T1193 to T1194's Point Drive		T1195 to T1196's Point Drive		T1197 to T1198's Point Drive		T1199 to T1200's Point Drive	

EMO Flood Map

	Pre flood				Forecast > 6.5				7.1 ramps covered			
Physical Locations affected	Location and water level will vary what is 7.8m at westmorland bridge is 7.5m at St Anne's point dr. Water level decreases 1dm /km				LoFood Lot affect at 6.9m				7.1 Bridge ramps south side affected 7.5m St Anne's Point Drive water on road 7.5 Riverside Drive & north side bridge ramps 7.7 Barker's point & Lower St Mary's (real level at site 7.3)			
EMO (evacuations)	April 1 st Prelim meeting with forecast EOC testing Tracking OT hours NB Power & Environment Canada Daily EMO emails to partners & council Get reports Snow Pack Forecasts				EOC level 1 Meeting at EOC to review plan Mayor involved Check availability/ schedules of reception centers				EOC level 2 Daily EOC meetings x 2 (internal & external)			
Roadway operations	Organize signage Fill Generator s Sand & sand bags Park. Elevators Test pump				Pre-Pos Barricades And signage Advise staff of potential shifts on work required Reception centers ? Where? Roadway Ops staff on call begin monitoring water levels				Ramp closed Bridge lane change based on duration of flood level Staff barricades 24 hours Street closures Elevators suspended during flood Add webcams -PMB -Walking bridge -Marysville heritage & Cenotaph Re program intersection traffic flow Drone flyovers			
Transit & Parking					Notify staff to leave Queen St upper				Notify staff leave York St Parking impacted various levels			
Water & Sewer	Q & A 5.5 sewer mains impacted causing more flow at Barker St				Dept of Health related questions				6.8 BP3 Lift gate closed 6.8 Inverted Siphon @Sunset/Main closed			
Parks & Trees									Staff barricades 24 hours Street closures			
Building Services									Elevators suspended during flood			
Communications	April 15 prep PSE pres/ support EMO Div River watch Liaise GNB/EMO Emerg Prep W/c Confirm optimum for Phone #'s/ Staff 72 hours/ get -Web page review (RW page & Static Comms Grab & Go box				Social Media/ Various levels vulnerable 6.5-6.8 LEVEL 1 Get prepared				7m-8.6 Level 2 Impacts on transportation Voluntary Sewage disruption FB live* Essential Briefings GNB EMO press Sal army/			

The Outcome “The Playbook”

Fire Department

The model was forecast to hit >6.5m

There was a social media blast of flood related information from brochures on April 16th. Fredericton Fire department delivered those pamphlets door to door in flood prone areas as river approached flood level.

Regular street checks were underway by April 26, ensuring FFD vehicles had access. Lower lying homes were checked as well as flood waters covered the streets.

The water level increased to 7.1 –

Ramps are now covered for the Westmorland Street Bridge. On April 28, 2018 the City of Fredericton Command Post was mobilized at the request of the Emergency Operations Center to deal with requests for assistance from citizens affected by rising flood waters.

The Command Post unit was set up at the Fort Nashwaak Motel with the Special Operations unit, the FFD Marine Unit and a flat bottom boat (with truck) borrowed from the Parks and Trees division.

The duty roster consisted of two command staff (IC and a duty Officer) and a three-person marine unit, utilizing the flat bottom boat, the FFD Zodiac and vehicle 3085. Duty shifts were eight hours in length, starting at 0700 hrs, 1500 hrs and 2300 hrs with the IC starting one hour earlier on each shift. The IC operated under the call sign Flood Command and all command post operations were conducted on channel 9. Two cell phones were deployed for the command staff. Regular reports of Command Post

Traffic Signal / Signing Changes

Prepared by: Jon Lewis (Traffic Engineer) – August 2018

When Regent on-ramp and Smythe on-ramp covered due to flooding:

- Reconfigure south end of WSB to allow for free-flow access from Queen Street (2 lanes onto Bridge from Regent / Queen intersection)
- Minimize green phase for thru traffic on Queen at Westmorland / Queen during all time periods
- Shorten Saunders phase at Westmorland / Saunders to minimum required for peds (5 second walk plus 10 second countdown)

When Regent off-ramp and Smythe off-ramp both covered due to flooding:

- Add police officer at Dundonald / Westmorland intersection to assist with heavy southbound

Parking Preparation & Protection

Level 6.5 - 7.0m

Upper Queen Lot (Flooding begins to occur at 6.6m) Notify Long term and issue via mass email, advise to park at Frederick Sq. Notify officers of UQ parking lot. Long term cash sale passholders aren't directly contacted unless a vehicle is in water. Service center is supposed to get emergency daytime contact when flooding happens. Sandwich board at lot entrance with signage indicating closure and Officer manning entrance from 7am-9am to inform people of alternate location and risk.

Level 7.0-7.5m

Upper Queen lot is fully flooded. When lot is fully flooded, no personnel allowed.

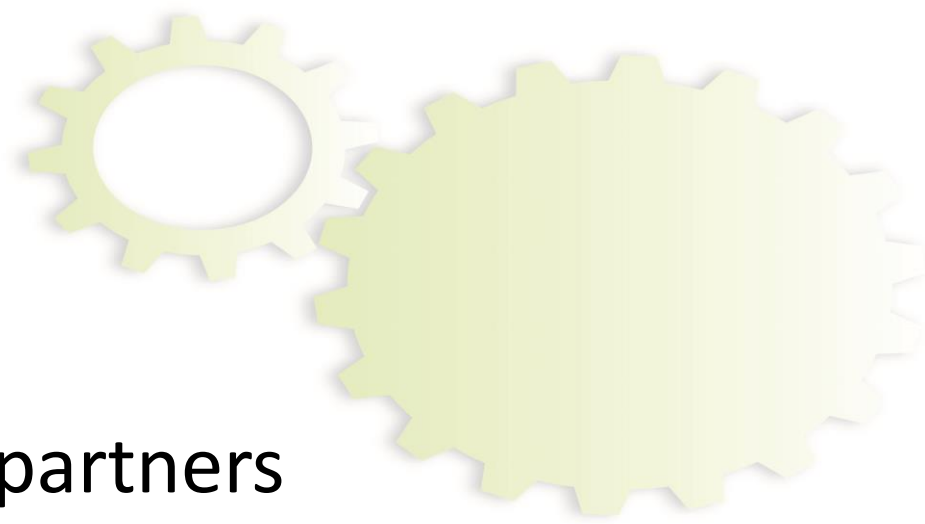
York Street Carpark (flooding starts to occur at 7.5m) Notify long term and issue via mass email, advise to park at alternate location (Frederick Sq, East end). Passes in Frederick Sq-East end. Block entrance preferably with R & S barriers. Entrance to inform people of alternate location or advise parking at own risk. Towing quickly here, towing sometimes required. Justice Dept. accesses their property removing batteries from pay stations.

Other Events -- Ice Storm, Fire, Long-term Power Outage, ...



Major Storm Event																							
General			Major Storm Forecasted		EOC Activation Level 1		EOC Activation Level 2					EOC Activation Level 3		Recovery									
All Staff	Staff plan						Remote services or off site services?																
EMO (evacuations)	EOC Testing	Daily EMO drills to partners & council			Meeting @ EOC review plan	Check availability & schedules for potential reception centers	Tracking OT hours	Daily EOC meetings x2 (internal & external)	Where can City Staff/ City hall operate from? Potential off site location	Reception centers where?	Mayor involved	Mandatory Evacuations	State of local emergency	Disaster Financial Assistance									
Roadway operations	TSP generation						Street closures	Staffing barricades?	Advise staff of potential shifts on work required	Roadway ops staff on call				Street opening protocol	Clear road from debris where possible	Debris pick up	Assess damages to property	Establish cost of damage					
Transit & Parking														Trail clean up									
Water & Sewer	Department of health related questions																						
Parks & Trees														Debris pick up	Trail clean up								
Building Services							Business Continuity plan	Building checks rotation															
Communications	Update DNS / EMO	72 hours get prepared	Social Media Media blast				Essential Emergency services only	Voluntary evacuation	FB live	Essential services	Briefings EMO/ comms NF + S&M	DNS EMO press briefings (key points)	Selection Army command post deployed	Corp/ PS scheduling/ Staffing Sen, Comms staff Wayne & Alice Support comms Jaime & Charla WPS Support IDP	Notifications on road closures, hazards, safety concerns etc.	General recovery messaging	Cleanup info	Debris pick up info	Patient & resilience msg	Health & safety/ electrical	Web clean up, restructuring/ alerts off	Frequent updates	Important phone #'s, NB EMO, Samaritan's Purse, Red Cross
Fire	Adjust response schedule staff EOC R & S recovery						POIR's	Command post deployed	Wellness checks on North & South sides	Track homes visited N & S sides	Include resources as required at area cut offs etc.				Recovery coordination with external partners & R&S for disposal								
Police					Forecast staff hours	Prepare roster	Police building inspected- where do police set up operations?					Patrol areas for lockers & safety equipment	Identify police buses for command post										
Serv/Fredrickson & Comm Center	Prepare mutual aid radios for York Sunbury Search & rescue	Gather & deploy ICDTMR radios	Gather & deploy Kenwood radios for parking & transit	Service Fredrickson extended hours		Prepare staff Plan ST evacuation Laptop & phone																	
Finance																							
IT																							
Recreation																							
External Partners	Stephen Moore contacts Salvation Army						NB Power communication on power shut off	Advanced notice where possible	Maps of impacted areas based on grid	Open shelter(s)	Commercial accommodations with Red Cross	NBEOC starts inspections		Cleanup contractors									

What we found



- There is a lot of value in having the partners involved
- It's better to have the discussions shortly after the event
 - Focus on what worked well / repeatable
 - What can we tweak to smoothen / what was frustrating staff or customers?



What makes this work

- Right level of detail – no work instructions required at this time (dump and document)
- Include “beyond normal” – e.g. 9m flood
 - Talk about it before it happens
- Include everyone that touches it
 - It educates
 - You might be surprised what you learn
- These are GUIDELINES, not a hammer



Still work to do...

- Identified gaps of knowledge / indecision
- Identified “nice to know”
- Need to add more detail to the Playbook
- Work with External Partners

EOC	Check reception center availability schedules	
Recreation	Recreation activation for Emergency Response	
	7.1 Ramps Covered	
EOC	Dedicated E.S.S resource in EOC	
EOC	Lack of duty officer	
EOC	Real time levels	
Fire	Fire command needs internet access	
Roadway Operations	Add webcams (PMB/Walking Bridge/Cenotaph/Marysville Heritage)	

1. **SANDBAGS**- Do we supply sandbags to the public? Every year? Not big cost, really need to follow GNB's lead. At what level do we make them available? Why some not others?
2. **COMMAND POSTS**- Evaluate the Unit itself-> Functionality
 - a. Consider options – Sea Can, retro-fit bus, new vehicle – does it need to be self-motored?
Locations/Timings (8am-8pm)
Need to design and submit for capital consideration for 2018/19 submission
3. **BUDGET MONEY**
sandbags, pumps etc should not come out of normal operational funds
Marker for operating budget 2018/2019
4. **DUTY OFFICERS ASSIGNED** - put more courses on
-Stephen Moore to co-ordinate
5. **REVIEW FORMS** – Duty officers need training on where to find them.
6. **ROAD CLOSURE NOTIFICATION** (GIS?) – I&I will host a Rapid Improvement Event around this (Dave Banks, Wayne Tallon, Mike W, Elaine, Stephen M, Transit, Brad C)
7. **FLOOD DEBRIS PICK UP**- When do we know we will pick up household/road flood debris?
-DFA contract
-Track costs
8. **BARRICADE STAFFING & SAFETY**
PURPOSE OF THE BARRICADE IS TO NOTIFY NOT TO BLOCK PEOPLE.

a) Closed vs. “No Through traffic.
Currently too many variations in signage (water over road road closed to through traffic road closed)

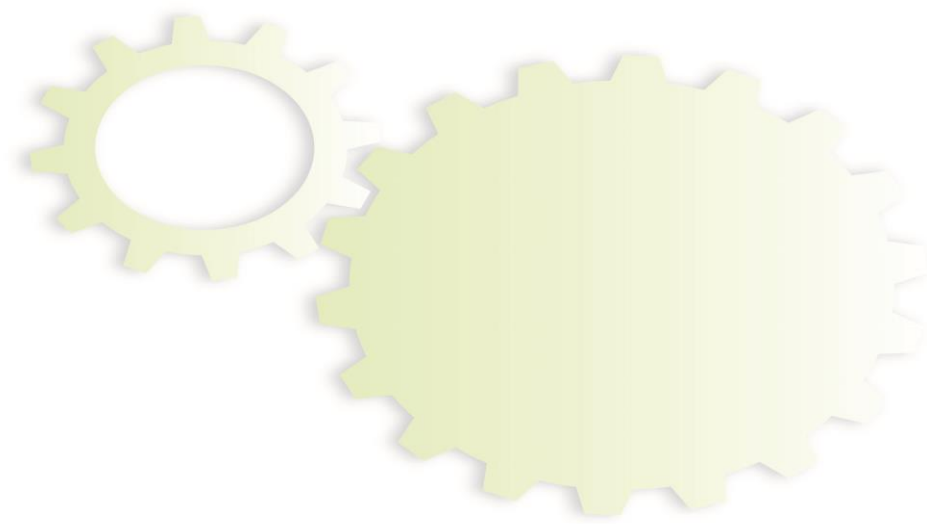
Our Results



- Heightened level of awareness throughout the organization
- Allows pre-planning prior to (and during) an event
- We move from being reactive to being proactive (and more and more proactive as we learn each year)



Final Steps

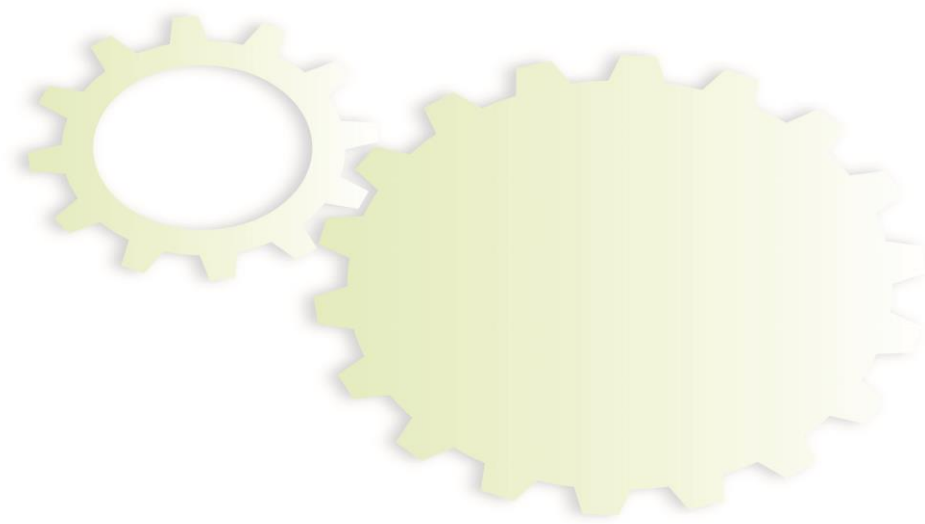


Plan, Do, CHECK, ADJUST

Follow-up in May 2019



Questions?



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Lean Six Sigma Master Black Belt

