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7 \*\*\*\*\*  
8 U.S. ARMY CORPS OF ENGINEERS  
9 PUBLIC MEETING  
10 ADDICKS AND BARKER DAM SAFETY PROGRAM UPDATE  
11 MARCH 9, 2016  
12 AGENDA  
13 \*\*\*\*\*  
14  
15  
16 ESQUIRE DEPOSITION SOLUTIONS  
17 1001 MCKINNEY STREET, SUITE 560  
18 HOUSTON, TEXAS 77002  
19 TEL: (713)524-4600  
20 REPORTED BY PHYLLIS LOY, CSR, RMR  
21 JOB NO. JO298815  
22  
23  
24  
25

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1 U.S. ARMY CORPS OF ENGINEERS PUBLIC MEETING  
2 WAS TAKEN ON MARCH 9, 2016, FROM 6:40 P.M. TO 7:58 P.M.,  
3 BEFORE PHYLLIS LOY, CSR, RMR, IN AND FOR THE STATE OF  
4 TEXAS, REPORTED BY STENO TYPE MACHINE, AT THE BEAR CREEK  
5 COMMUNITY CENTER, 3055 BEAR CREEK DRIVE, HOUSTON, TEXAS.  
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A P P E A R A N C E S

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2 PRESENTER: COL. RICHARD P. PANNELL  
3  
4 PANEL:  
5 MR. RICK VILLAGOMEZ, PROJECT MANAGER  
6  
7 MR. JOHN LONG, RESIDENT ENGINEER, ADDICKS AND  
8 BARKER DAMS CONSTRUCTION  
9 MR. RICHARD LONG, RESOURCE MANAGER, ADDICKS AND  
10 BARKER DAMS  
11  
12 MR. TERRY BAUTISTA, CHIEF, ENGINEERING &  
13 CONSTRUCTION DIVISION  
14 MR. DOMINGO GONZALEZ, PROJECT MANAGER, GRANITE  
15 CONSTRUCTION COMPANY  
16  
17 MR. STEVE FITZGERALD, CHIEF ENGINEER, HARRIS COUNTY  
18 FLOOD CONROL DISTRICT  
19  
20  
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Page 5

1 COL. PANNELL: WE'LL GO AHEAD AND GET  
2 STARTED. I KNOW THE WEATHER IS PRETTY BAD OUT THERE.  
3 SO IF YOU'RE SITTING HERE, YOU CAN DO TWO THINGS VERY  
4 WELL. YOU CAN DRIVE IN BAD WEATHER AND YOU CAN NAVIGATE  
5 HOUSTON TRAFFIC, WHICH HAS ALREADY CLAIMED ONE OF OUR  
6 PANEL MEMBERS WHO IS COMING UP FROM GALVESTON. IT TOOK  
7 ME TWO AND A HALF HOURS THIS AFTERNOON TO GET UP HERE  
8 FROM GALVESTON. SO HE PROBABLY STARTED A LITTLE BIT  
9 BEHIND ME.  
10 BUT I DID WANT TO WELCOME YOU ALL HERE  
11 TODAY. THANKS FOR COMING OUT TO LEARN ABOUT THE  
12 PROJECT. AND WE LOOK FORWARD TO DESCRIBING THE PROJECT  
13 AND SOME OF THE THINGS THAT WE'RE DOING AND LOOKING  
14 TOWARDS THE FUTURE AS WELL. WE'VE GOT SOME NEAT THINGS  
15 TO SHOW YOU IN TERMS OF SOME VISUALIZATION OF THE FUTURE  
16 PROJECT, AS WELL AS PICTURES OF SOME OF THE CONSTRUCTION  
17 THAT IS GOING ON.  
18 WHAT I WOULD LIKE TO DO NOW IS MAKE SOME  
19 INTRODUCTIONS. MY NAME IS COLONEL RICHARD PANNELL. I'M  
20 THE COMMANDER OF GALVESTON DISTRICT AND THE DISTRICT  
21 ENGINEER. AND I'VE BEEN THERE FOR ABOUT -- JUST GOING  
22 ON THREE YEARS NOW. I WAS HERE FOR A PUBLIC MEETING  
23 ABOUT -- OH, I GUESS IT WAS ABOUT 16 OR 18 MONTHS AGO WE  
24 DID THE LAST ONE HERE BEFORE WE GOT INTO THE  
25 CONSTRUCTION PROJECT.

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1 SO WITH THAT, I'LL START HERE AND WE'LL GO  
2 DOWN THE ROW.  
3 MR. JOHN LONG: MY NAME IS JOHN LONG. I'M  
4 THE ADDICKS AND BARKER DAM RESIDENT ENGINEER. I'VE BEEN  
5 IN THE HOUSTON COMMUNITY ABOUT 15 MONTHS. I CAME FROM  
6 ALBUQUERQUE DISTRICT, HOLLOWMAN AIR FORCE BASE.  
7 MR. RICHARD LONG: I'M RICHARD LONG. I'M  
8 WITH THE PROJECT OPERATION. NO RELATIONSHIP AT ALL.  
9 I'VE BEEN HERE FOR 30 YEARS.  
10 MR. VILLAGOMEZ: RICK VILLAGOMEZ. I'M THE  
11 PROJECT MANAGER ON THE ADDICKS AND BARKER PROJECT. I  
12 WORK THROUGH THE STUDY AND DESIGN. AND I'VE SEEN SOME  
13 OF YOU FOLKS AT PRIOR PUBLIC MEETINGS. NICE TO SEE YOU.  
14 MR. FITZGERALD: I'M STEVE FITZGERALD WITH  
15 THE HARRIS COUNTY FLOOD CONTROL DISTRICT, CHIEF  
16 ENGINEER, REPRESENTING HARRIS COUNTY FLOOD DISTRICT.  
17 MR. GONZALEZ: GOOD EVENING. MY NAME IS  
18 DOMINGO GONZALEZ. I'M WITH GRANITE CONSTRUCTION  
19 COMPANY, THE CONTRACTOR.  
20 COL. PANNELL: THANKS. MR. TERRY BAUTISTA  
21 IS OUR CHIEF OF ENGINEERING AND CONSTRUCTION. AND  
22 HOPEFULLY HE'LL ARRIVE HERE SOON. BUT I THINK WE'VE GOT  
23 ASSEMBLED ALL THE PEOPLE HERE WHO KNOW THE PROJECT AS  
24 WELL AS ANYONE AND HOPEFULLY CAN ADDRESS ANY OF YOUR  
25 QUESTIONS OR CONCERNS.

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1 WHAT I WOULD LIKE TO DO IS REALLY TALK  
2 ABOUT THE PURPOSE OF THE MEETING HERE. AND IF YOU GO TO  
3 THE NEXT SLIDE. JUST KIND OF TALK ABOUT A COUPLE THINGS  
4 ON THIS SLIDE. THIS IS KIND OF OUR AGENDA, BUT REALLY  
5 WE JUST WANT TO PROVIDE AWARENESS AND UNDERSTANDING OF  
6 THE PROJECT. AND THERE IS ALWAYS A LOT OF EITHER  
7 MISINFORMATION OR JUST NOT UNDERSTANDING OF THE AREA  
8 JUST BECAUSE IT'S -- TYPICALLY ON ANY GIVEN DAY IT'S A  
9 BEAUTIFUL RECREATIONAL AREA AND SOME FOLKS DON'T  
10 UNDERSTAND WHY IT'S HERE AND WHAT THE PURPOSE IS.  
11 WE ALSO WANTED TO PROVIDE UPDATE ON THE  
12 START OF CONSTRUCTION. AS WE DISCUSSED 18 MONTHS AGO,  
13 WE WERE AWARDING A CONTRACT TO REPLACE THE OUTLET  
14 STRUCTURES. SO WE'RE GOING TO GIVE YOU AN UPDATE ON  
15 WHERE WE ARE IN THAT PROCESS.  
16 SO IN TERMS OF THE AGENDA, WE'LL START WITH  
17 THE HISTORY A LITTLE BIT AND KIND OF REVIEW THE REASON  
18 WHY WE'RE EVEN HERE TODAY, IN TERMS OF WHY THIS PROJECT  
19 GOT BUILT TO BEGIN WITH. TALK A LITTLE BIT ABOUT SOME  
20 OF OUR FINDINGS FROM OUR DAM SAFETY PROGRAM AS WE LOOK  
21 AT THE DAM OVER THE YEARS. AND THEN LOOK AT SOME OF THE  
22 INTERM RISK REDUCTION MEASURES THAT HAVE BEEN PUT IN  
23 PLACE.  
24 LAST TIME I WAS HERE, THAT WAS KIND OF WHAT  
25 I WAS TALKING ABOUT FOR THE MOST PART. SO WE'RE GOING

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1 TO KIND OF REVIEW THAT. ALL OF THOSE HAVE BEEN PUT INTO  
2 PLACE AT THIS TIME.  
3 NOW WE'RE GOING TO BE TALKING ABOUT THE  
4 CONSTRUCTION OF THE OUTLET STRUCTURES. AND THEN WHAT'S  
5 THE WAY AHEAD AFTER THIS CONSTRUCTION PROJECT IN TERMS  
6 OF REEVALUATING THE SAFETY OF THE SYSTEM AND ALSO  
7 LOOKING AT KIND OF THE NEXT PHASE OF HOW WE DO REDUCE  
8 RISKS IN THIS AREA.  
9 GO AHEAD TO THE NEXT SLIDE.  
10 SO THIS IS THE CORPS OF ENGINEERS' MISSION.  
11 THIS IS KIND OF WHY WE'RE THE ONES THAT ARE RESPONSIBLE  
12 FOR THIS. IT REALLY GOES BACK TO A SERIES OF LAWS THAT  
13 THE UNITED STATES HAS PASSED OVER MANY YEARS. THE CORPS  
14 OF ENGINEERS HAS BEEN AROUND SINCE BEFORE THE FOUNDING  
15 OF THE COUNTRY. WE WERE PART OF THE ESTABLISHMENT OF  
16 THE COUNTRY IN 1775. WE HAVE BEEN KIND OF LINKED AS THE  
17 NATIONAL ENGINEER OVER, YOU KNOW, TWO CENTURIES, WORKING  
18 TOGETHER WITH THE FEDERAL GOVERNMENT, WORKING AS PART OF  
19 THE UNITED STATES ARMY, BUT ALSO RESPONSIBLE FOR  
20 PROVIDING LARGE SCALE INFRASTRUCTURE FOR THE NATION AND  
21 ALSO LOOKING AT WAYS THAT WE CAN REDUCE THE RISK OF  
22 DISASTERS.  
23 IN THE CASE OF THIS AREA, THE RISKS WERE  
24 RELATED TO FLOODING. AND THIS IS PRETTY COMMON ACROSS  
25 THE UNITED STATES BACK IN THE '20S OR '30S. THAT'S

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1 REALLY WHEN THE CORPS OF ENGINEERS GOT IN THE FLOOD RISK  
2 MANAGEMENT BUSINESS. AND I'LL TALK A LITTLE BIT ABOUT  
3 THAT.  
4 GO AHEAD AND TO THE NEXT SLIDE.  
5 THE NEXT SLIDE HAS GOT KIND OF THE OVERALL  
6 TIMELINE OF THIS PROJECT.  
7 COME ON UP. TERRY BAUTISTA IS HERE. OH,  
8 MAN. WE GOT A SPOT FOR YOU RIGHT HERE.  
9 MR. BAUTISTA: YOU DIDN'T HAVE TO DO THAT.  
10 COL. PANNELL: I KNOW EXACTLY WHAT HAPPENED  
11 TO TERRY. I HAD THE SAME THING HAPPEN. I JUST STARTED  
12 EARLIER.  
13 I'LL TRY TO HIGHLIGHT SOME OF THESE THINGS.  
14 FIRST, AS I MENTIONED, THIS PROJECT WAS REALLY IN  
15 RESPONSE TO PRETTY LARGE SCALE FLOODING THAT OCCURRED IN  
16 THE HOUSTON AREA BACK IN THE '20S AND '30. THE GREAT  
17 FLOOD OF '29 WAS EXTREMELY SIGNIFICANT AND NOT A LOT  
18 HAPPENED AFTER THAT. THEN THE FLOOD OF '35 CAME RIGHT  
19 ON ITS HEELS. THAT'S WHEN I THINK THERE WAS A SERIOUS  
20 EFFORT TO START ADDRESSING THE PROBLEM. AND SHORTLY  
21 AFTER THAT, THE HARRIS COUNTY FLOOD CONTROL DISTRICT WAS  
22 FORMED. I THINK IT WAS '37. WAS THAT RIGHT?  
23 MR. FITZGERALD: '37.  
24 COL. PANNELL: OKAY. 1937. THAT WAS KIND  
25 OF THE LOCAL ARM TO WORK HAND IN HAND WITH THE CORPS OF

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1 ENGINEERS. WE HAVE BEEN WORKING CLOSELY WITH THE HARRIS  
2 COUNTY FLOOD DISTRICT OVER THOSE DECADES.  
3 SO THIS EVENT HAPPENED. THEN WE DID THE  
4 CONSTRUCTION OF THE DAM. WE'RE GOING TO TALK A LITTLE  
5 BIT ABOUT THE POOL OF RECORDS AND THEN LOOK AT OUR  
6 REEVALUATION OF THE DAM AS IT STARTS AGING. THIS  
7 INFRASTRUCTURE IS GOING ON 70 YEARS OLD. ACROSS THE  
8 NATION WE HAVE THIS CHALLENGE WITH AGING INFRASTRUCTURE  
9 BECAUSE A LOT OF OUR NATURAL INFRASTRUCTURE WAS BUILT  
10 ABOUT THE SAME TIME. YOU KNOW, AS WE START REACHING THE  
11 LIFE EXPECTANCY OF THE DAM, THAT'S AN IMPORTANT TIME FOR  
12 US TO REEVALUATING THAT.  
13 THEN WE GOT INTO PUTTING SOME INTERIM RISK  
14 REDUCTION MEASURES IN PLACE, COMPLETING A STUDY TO  
15 JUSTIFY REPLACING OUTLET STRUCTURES, AND THEN GOING INTO  
16 DESIGN, AWARDED THE CONTRACT. THEN WE'LL ACTUALLY TALK  
17 A LITTLE BIT ABOUT SOME OF THE THINGS WE'RE GOING TO BE  
18 DOING IN THE FUTURE. THIS IS KIND OF THE BULLETS THAT  
19 WE'RE GOING TO HIT.  
20 SO IF YOU HIT THE NEXT SLIDE, WE'LL START  
21 WITH THE FLOODING.  
22 THE PICTURE SHOWS YOU SOME OF THE PICTURES  
23 FROM THOSE FLOODS BACK IN THE '20S AND '30S. YOU CAN  
24 SEE -- PARTICULARLY THIS PICTURE HERE REALLY GIVES YOU  
25 AN IDEA OF DOWNTOWN HOUSTON AND HOW BADLY IT FLOODED.

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1 YOU KNOW, THE CITY OF HOUSTON IS, I THINK, AROUND  
2 33 FEET ABOVE SEA LEVEL. SO IT'S REALLY NOT THAT FAR  
3 ABOVE SEA LEVEL. THE ENTIRE AREA IS EXTREMELY FLAT AND  
4 YOU'VE GOT THESE DRAINAGE SYSTEMS. WHEN YOU GET SOME OF  
5 THESE EXTREMELY LARGE STORMS THAT COME THROUGH, WHETHER  
6 IT'S A TROPICAL STORM OR JUST A NORMAL FRONTAL ACTIVITY  
7 THAT COMES THROUGH, IT HAS THE POTENTIAL TO DROP A LOT  
8 OF RAINFALL IN THE AREA AND QUICKLY GETS INTO THAT  
9 SYSTEM AND THEN MOVES DOWN ULTIMATELY, TYPICALLY INTO  
10 BUFFALO BAYOU AND THEN OUT THE SHIP CHANNEL.  
11 SO YOU KIND OF SEE THE FLOODING THAT'S  
12 OCCURRED. AND ONE OF THE THINGS I'LL BE TALKING ABOUT  
13 IN THE SLIDE SHOW IS THIS IDEA OF RISK AND HOW WE MANAGE  
14 THAT RISK.  
15 WE REALLY LOOK AT RISK IN TWO WAYS. ONE IS  
16 THE LIKELIHOOD OF SOMETHING BAD HAPPENING AND THEN THE  
17 SECOND IS THE CONSEQUENCE OF THAT ISSUE HAPPENING. SO  
18 WITH A CITY LIKE HOUSTON, AND YOU CAN SEE THE  
19 CONSEQUENCE RIGHT HERE. AND THE CONSEQUENCE IS  
20 SIGNIFICANT FLOODING, AT THE TIME MILLIONS OF DOLLARS'  
21 WORTH OF DAMAGE, SOME LOSS OF LIFE. AND IT WAS PRETTY  
22 LIKELY TO HAPPEN AT THAT TIME.  
23 IT HAPPENED FOUR TIMES IN THE FOUR PREVIOUS  
24 DECADES AND THEN TWICE WITHIN SIX YEARS. SO WE KNOW THE  
25 LIKELIHOOD IS VERY HIGH AND THE CONSEQUENCE IS PRETTY

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1 HIGH AS WELL.  
2 SO THIS SITUATION, YOU KNOW, WE WOULD LABEL  
3 AS HIGH RISK. AND SO THAT'S THE KIND OF JUSTIFICATION  
4 WE NEED IN ORDER TO JUSTIFY GETTING FEDERAL MONEY TO DO  
5 THIS TYPE OF PROJECT.  
6 SO IF YOU LOOK AT THE NEXT SLIDE, THIS IS  
7 THE PLAN THAT WAS DEVELOPED AT THE TIME TO TRY AND  
8 REDUCE THE RISK IN HOUSTON.  
9 YOU SEE A COUPLE THINGS ON HERE. THE CITY  
10 OF HOUSTON, PRETTY MUCH THIS LITTLE BOUNDARY IS THE  
11 DEVELOPED AREA AT THE TIME, 1940. THE PLAN CALLED FOR  
12 THREE RESERVOIRS: ADDICKS, BARKER AND THEN WHITE OAK  
13 RESERVOIR. THEN IT ALSO CALLED FOR A LEVY UP HERE ALONG  
14 CYPRESS CREEK, AND THEN TWO KIND OF GRAND CANALS THAT  
15 DIVERTED WATER AROUND THE CITY. SO THAT WAS THE PLAN --  
16 THE ORIGINAL PLAN OF THE CONCEPT THAT WAS DEVELOPED AS A  
17 RESULT.  
18 WELL, OF THAT, ONLY TWO THINGS WERE  
19 BUILT -- ONLY TWO STRUCTURES WERE BUILT: ADDICKS  
20 RESERVOIR AND BARKER. AND, OF COURSE, THE OUTLETS ARE  
21 RIGHT HERE IN THIS AREA. THEY GO INTO BUFFALO BAYOU.  
22 THEY DON'T GO INTO THE GRAND CANALS NORTH AND SOUTH.  
23 THEY GO RIGHT THROUGH THE CITY OF HOUSTON. SO THAT WAS  
24 THE PLAN THAT WE ENDED UP EXECUTING.  
25 THESE ARE SOME SLIDES OF CONSTRUCTION. A

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1 COUPLE THINGS I WANTED TO HIGHLIGHT ON HERE IS WHEN THE  
2 OUTLETS WERE ORIGINALLY BUILT, THEY WEREN'T SET UP TO  
3 IMPOUND WATER. SO THE GATES THAT YOU SEE RIGHT HERE,  
4 THE WATER WOULD -- ESSENTIALLY IT TAKES THE DETENTION  
5 POND. ONCE IT GOT TO A CERTAIN ELEVATION, THE WATER  
6 WOULD THEN FLOW FREELY OUT OF THE STRUCTURE. IT WASN'T  
7 UNTIL LATER THAT WE ADDED GATES ON IT TO ALLOW THE  
8 CONTROL, THE IMPOUNDING OF WATER TO BETTER REDUCE RISKS  
9 OF FLOODING DOWNSTREAM.  
10 GO TO THE NEXT SLIDE. I THINK WE GOT SOME  
11 MORE PICTURES. IN FACT, YOU CAN SEE HERE'S THE  
12 BEGINNING OF -- IT LOOKS LIKE A GRATE STRUCTURE IS  
13 THERE. I'M NOT SURE WHEN THAT PICTURE IS. THAT WAS  
14 SOMETIME AFTER CONSTRUCTION. DO YOU RECALL THE YEAR THE  
15 FIRST GATES WERE PUT ON?  
16 MR. RICHARD LONG: THE FIRST GATES WERE PUT  
17 ON RIGHT AFTER INITIAL CONSTRUCTION, FOLLOWED BY THE  
18 FINAL GATE IN THE EARLY '60S.  
19 COL. PANNELL: SO THE FIRST GATES, THAT  
20 WOULD BE AROUND '48. SO THAT JUST GIVES YOU AN IDEA OF  
21 THE STRUCTURES THAT ARE CURRENTLY IN PLACE TODAY. SO  
22 THAT CONSTRUCTION PROJECT THAT YOU JUST SAW THERE IS  
23 WHAT WE BUILT IN RESPONSE TO THOSE FLOODS.  
24 SO AS YOU LOOK IN THE '50S, THIS IS WHAT IT  
25 LOOKED LIKE FOR HOUSTON. SO YOU GOT THE CITY OF

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1 HOUSTON, THIS RED AREA. THE URBANIZED AREA IS STARTING  
2 TO GROW. SO AS IT GROWS, THE CONSEQUENCE INCREASES.  
3 BUT NOW WE'VE GOT THESE TWO RESERVOIRS THAT ARE IN PLACE  
4 TO IMPOUND -- I GUESS AT THIS POINT TO IMPOUND WATER.  
5 SO THE LIKELIHOOD OF FLOODING HAS BEEN REDUCED. SO NOW  
6 THE OVERALL RISK OF THE SYSTEM IS LOWER THAN IT WAS  
7 BEFORE WE PUT THE STRUCTURES IN PLACE.  
8 OF COURSE, YOU KNOW, WE WANT THE SYSTEM TO  
9 WORK AS WELL AS POSSIBLE. SO OVER THE YEARS WE ADDED  
10 ADDITIONAL FEATURES TO IT TO BETTER CONTROL THE FLOW OF  
11 THE WATER AND TO MAKE THE SYSTEM A LITTLE BIT MORE  
12 RESILIENT TO SOME OF THE ISSUES THAT WE WERE EXPECTING  
13 TO HAPPEN, WHETHER IT WAS, YOU KNOW, WORRIED ABOUT  
14 SEEPAGE OR PUTTING -- YOU KNOW, WORRIED ABOUT THE WATER  
15 FILLING UP SO HIGH AND THEN BEING ABLE TO GO OVER THE  
16 EMBANKMENT, YOU KNOW, OVERTOPPING THE EMBANKMENT. SO WE  
17 RAISED IT TO ELIMINATE SOME OF THAT OVERTOPPING AND THEN  
18 DID SOME ARMORING AS WELL.  
19 SO OVER THE COURSE OF THREE DECADES WE WERE  
20 LOOKING TO IMPROVE THE SYSTEM. AND WE'RE STILL  
21 IMPROVING. I SUSPECT WE WILL ALWAYS LOOK TO IMPROVE  
22 THAT SYSTEM IN THE FUTURE.  
23 SO, YOU KNOW, AS I SAID, THE LIKELIHOOD IS  
24 RELATIVELY LOW BECAUSE WE HAVE BEEN IMPROVING THE  
25 SYSTEM. BUT THE CONSEQUENCE IS GROWING. SO WHAT YOU

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1 SEE ON THIS MAP IS THE CITY OF HOUSTON CONTINUING TO  
2 GROW AND NOW YOU SEE THE URBAN AREA APPROACHING CLOSER  
3 AND CLOSER TO THE STRUCTURES THEMSELVES. AND ACTUALLY  
4 YOU START SEEING DEVELOPMENTS ON THE BACK SIDE OF THE  
5 STRUCTURE.  
6 AND, OF COURSE, YOU KNOW, WHEN WE PUT THAT  
7 IN, THAT WAS ALL JUST FARMLAND. THERE WASN'T ANYTHING  
8 AROUND FOR MILES AND MILES AND MILES. AND KATY WAS A  
9 LITTLE SMALL DOT ON THE MAP THAT HAD NO TRAFFIC  
10 CHALLENGES AT THE TIME.  
11 SO I WANTED TO SHOW YOU SOME PICTURES OF  
12 WHAT HAS BEEN HAPPENING A LITTLE BIT MORE RECENTLY. ONE  
13 OF THE THINGS WE LIKE TO DO IS COMPARE IT TO THE FLOOD  
14 OF RECORD OR THE POOL OF RECORD -- NOT THE FLOOD OF  
15 RECORD. THE POOL OF RECORD. THAT OCCURRED IN 1992.  
16 AND THE REASON IS THE POOLS OF RECORD IS WE WERE  
17 IMPOUNDING SIGNIFICANT WATER THAT WAS LANDING IN THE  
18 ADDICKS AND BARKER WATERSHED AT THAT TIME.  
19 SO RECENTLY, IF YOU RECALL THE MEMORIAL DAY  
20 FLOODS THAT WE HAD, WE HIT THE FOURTH AND FIFTH POOL OF  
21 RECORD. I THINK RICHARD HAS GOT THE NUMBERS THERE. I  
22 CAN'T REMEMBER WHICH ONE WAS WHICH.  
23 MR. RICHARD LONG: ADDICKS WAS THE FIFTH  
24 POOL AND BARKER WAS THE FOURTH POOL OF RECORD.  
25 COL. PANNELL: SO THE FOURTH POOL OF RECORD

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1 IS BARKER AND FIFTH POOL OF RECORD AT ADDICKS. SO THE  
2 PICTURES THAT YOU SEE UP THERE SHOW WHAT THE WATER  
3 LEVELS WERE AT THE TIME. I THINK HARRIS COUNTY FLOOD  
4 CONTROL DISTRICT PROVIDED US WITH THOSE PICTURES.  
5 SO IT JUST GIVES YOU AN IDEA OF WHAT THAT  
6 FLOODING WOULD LOOK LIKE WHEN YOU'RE PRETTY CLOSE TO THE  
7 POOL OF RECORD. WE WERE ONLY A COUPLE OF FEET BELOW THE  
8 ELEVATION OF THE POOL OF RECORD. WHAT'S NEAT ON THESE  
9 SLIDES IS YOU CAN SEE ALL THE FLOODING ON ONE SIDE OF  
10 THE RESERVOIR AND THEN THE DEVELOPED AREAS WERE  
11 RELATIVELY HIGH AND DRY. SO THAT'S GOOD. THAT'S GOOD.  
12 YOU CAN ALSO SEE THE AMOUNT OF WATER THAT WAS BEING  
13 RELEASED AT THE TIME. SO WHAT TYPICALLY HAPPENS -- GO  
14 BACK THERE.  
15 WHAT TYPICALLY HAPPENS IS, YOU KNOW, IF WE  
16 KNOW A RAIN EVENT IS COMING, WE'RE GOING TO CLOSE THE  
17 GATES UNTIL -- AND START IMPOUNDING WATER. AND THEN  
18 ONCE THE SYSTEM PASSES, THEN WE WOULD RELEASE AT A  
19 CONTROLLED RATE.  
20 SO THAT'S WHAT WE WERE DOING BACK IN JUNE.  
21 OF COURSE, WE HAD A SERIES OF RAINFALL EVENTS. SO IT  
22 MADE IT A LITTLE BIT MORE COMPLICATED.  
23 SO AS YOU KNOW, 1992, THAT WAS A POOL OF  
24 RECORD. WE'RE GETTING CLOSE TO A 50-YEAR LIFE  
25 EXPECTANCY OF THE PROJECT. SO AS WE ENTERED INTO 2000,

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1 2010, THAT TIME PERIOD IS ACROSS THE NATION, THE CORPS  
2 OF ENGINEERS IS EVALUATING THE INFRASTRUCTURE. ONE OF  
3 THE ASSESSMENTS WAS DONE HERE AT ADDICKS AND BARKER. AS  
4 YOU KNOW, YOU'RE CONCERNED ABOUT THE INCREASE IN  
5 CONSEQUENCE. THE CITY OF HOUSTON HAS BEEN GROWING VERY,  
6 VERY RAPIDLY AND NOW YOU ALSO HAVE THIS AGING  
7 INFRASTRUCTURE. SO THE LIKELIHOOD OF AN ISSUE IS  
8 PROBABLY INCREASING AND THE CONSEQUENCE IS INCREASE.  
9 AND SO IF YOU HIT THE NEXT SLIDE THERE, YOU  
10 KNOW, THIS IS JUST A FEW POINTS ABOUT WHAT'S GOING ON  
11 ACROSS THE NATION. WE'VE GOT HUNDREDS OF DAMS, HUNDREDS  
12 OF PROJECTS ACROSS THE NATION AND ADDICKS AND BARKER IS  
13 ONE OF THEM. BUT IT'S A LITTLE UNIQUE IN THE SENSE THAT  
14 IT'S UPSTREAM FROM THE FOURTH LARGEST CITY IN THE  
15 NATION.  
16 OUR FOCUS WITH THE SAFETY PROGRAM IS ON  
17 LIFE SAFETY. SO THAT'S FOREMOST IS WE'RE HERE TO  
18 PROTECT LIFE SAFETY AND SECONDLY TO PROTECT  
19 INFRASTRUCTURE.  
20 SO AS WE STARTED LOOKING AT THIS  
21 ASSESSMENT, WE REALIZED WE WERE FINDING OUT WE HAD SOME  
22 ISSUES. WE HAVE VOIDS DEVELOPING BASIC TO THE CONDUIT.  
23 WE HAD SEEPAGE. WE HAD THE POTENTIAL FOR PIPING, WHICH  
24 IS LINKING THOSE VOIDS TOGETHER AND ALLOWING WATER TO  
25 MOVE ADJACENT UNDERNEATH THE CONDUITS. AND THEN WE HAD

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1 SOME ISSUED AT THE ENDS OF THE DAMS AS WELL.  
2 SO HERE'S EXAMPLES OF WHAT THAT LOOKED  
3 LIKE. SO THIS PICTURE ON THE TOP MAY BE A LITTLE BIT  
4 HARD TO SEE. BUT YOU CAN SEE THE FIVE CONDUITS THAT GO  
5 THROUGH THE LEVY. THIS IS UPSTREAM. THIS IS THE  
6 OUTLET. AND THIS IS GROUND PENETRATING RADAR. WHAT IT  
7 IDENTIFIED WERE THESE LITTLE SHADED AREAS WERE VOIDS  
8 THAT WE WERE DETECTING UNDERNEATH THE SYSTEM AND MAYBE  
9 SOME CRACKS HERE. AND, YOU KNOW, THESE VOIDS START  
10 LINKING TOGETHER. NOW YOU CAN HAVE WATER PASSING  
11 THROUGH IT, ERODING, TAKING MORE MATERIAL AWAY AND  
12 CAUSING POTENTIAL ISSUES.  
13 THEN HERE YOU SEE SOME OF THE SEEPAGE  
14 WITHIN THE CONDUIT ITSELF. YOU HAVE GOT SATURATED WATER  
15 AROUND THE CONDUIT. YOU SEE THE SEEPAGE COMING INTO THE  
16 CONDUIT.  
17 WE'LL GO BACK. ONE OF THE THINGS YOU'LL  
18 GET A CHANCE TO DO AFTERWARDS -- WE HAVE SOME  
19 VISUALIZATION TOOLS THAT YOU CAN LOOK AT THAT SHOWS THE  
20 NEW OUTLET STRUCTURE, EXACTLY WHAT IT IS GOING TO LOOK  
21 LIKE IN THREE-DIMENSION. SO YOU'LL BE ABLE TO TAKE A  
22 LOOK AT IT. BUT KIND OF A 3-D RENDERING OF THE CONDUIT  
23 AND THE OUTLET STRUCTURES. YOU CAN SEE ANY ANGLE AND  
24 LOOK AT ANY FEATURE OF THE STRUCTURE.  
25 SO HERE WE ARE IN 2009. THE CITY OF

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1 HOUSTON HAS NOW ENGULFED ADDICKS AND BARKER. IT  
2 CONTINUES TO GROW. WE HAD THE LOOP. THAT WASN'T GOOD  
3 ENOUGH. NOW WE GOT A BELTWAY. AND IT WASN'T GOOD  
4 ENOUGH. NOW WE HAVE THE GRAND PARKWAY. AND I DON'T  
5 KNOW WHAT IS AFTER. I DON'T KNOW IF WE CAN GET MUCH  
6 GRANDER THAN THE GRAND PARKWAY. BUT SOMEWHERE OUT THERE  
7 THERE IS ANOTHER LOOP. YOU KNOW, ON THE POSITIVE SIDE  
8 THESE STRUCTURES HAVE BEEN SUPPORTING AND REDUCING RISK  
9 AND THE CITY OF HOUSTON HAS ALLOWED THAT DEVELOPMENT TO  
10 OCCUR.  
11 BUT ON THE NEGATIVE SIDE FOR THE PROJECT  
12 ITSELF, YOU HAVE GOT ALL THIS DEVELOPMENT. THAT MEANS  
13 WHENEVER YOU DEVELOP LAND, TYPICALLY THE RUNOFF  
14 INCREASES. AND SO THESE RESERVOIRS ARE GOING TO FILL UP  
15 A LOT FASTER THAN THEY USED TO. SO WE EXPECT TO HAVE  
16 POOLS OF RECORD IN THE FUTURE WHEN WE HAVE LARGE EVENTS.  
17 AND AT THE SAME TIME THROUGH ALL THESE  
18 YEARS WE HAVE BEEN WORKING CLOSELY WITH THE HARRIS  
19 COUNTY FLOOD CONTROL DISTRICT ON ALL THE PROJECTS THAT  
20 THEY HAVE GOING ON JOINTLY WITH US THROUGHOUT HOUSTON,  
21 ALL THE BAYOU SYSTEMS, SIMS BAYOU, WHITE OAK BAYOU,  
22 BRAYS BAYOU, AND SO ON. ALL OF THOSE ARE PART OF THE  
23 SYSTEM TO REDUCE FLOOD RISK IN THE CITY.  
24 SO AS I MENTIONED LAST TIME, WE RECOGNIZED  
25 WE HAD SOME PROBLEMS. SO WHAT ARE WE GOING TO DO TO FIX

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1 IT? IT'S GOING TO TAKE A WHILE TO REPLACE THE  
2 STRUCTURES. IN THE MEANTIME WE NEED TO DO SOMETHING TO  
3 FIX THEM NOW TO MAKE SURE THAT THEY ARE SAFE AND REDUCE  
4 THAT RISK AS MUCH AS WE CAN IN TERMS OF THE LIKELIHOOD  
5 OF SOMETHING BAD HAPPENING.  
6 SO YOU CAN SEE WHAT WE'VE DONE HERE. WE  
7 HAVE DONE GROUTING OF THE CONDUITS, FILLED THOSE VOIDS.  
8 WE HAVE PUT STEEL PLATES ON THE OUTLET STRUCTURES. WHAT  
9 WE WERE WORRIED ABOUT IS THAT OUTLET SLAB OF CONCRETE  
10 WOULD START FLOATING UP WITH WATER. IT WAS GETTING  
11 UNDERNEATH IT. AND YOU HAVE THE POTENTIAL TO HAVE THAT  
12 OUTLET FAIL. SO WE PLACED THIS VERY HEAVY STEEL ON TOP  
13 OF IT TO PREVENT THAT FROM HAPPENING. AT THE SAME TIME  
14 WE'RE GROUTING IT, FILLING VOIDS, SEALING IT.  
15 WE ALSO PUT IN SOME EMERGENCY GENERATOR  
16 SYSTEMS TO ENSURE THAT OUR GATES CAN BE OPERATED EVEN IF  
17 WE HAD SOME KIND OF ELECTRICAL PROBLEM. WE ALSO DID  
18 SOME GATE REPLACEMENT. SO ALL THOSE INTERIM FIXES WERE  
19 COMPLETED. AND THE FEEDBACK THAT WE RECEIVED AND ALL  
20 THE ASSESSMENTS THAT WE HAVE DONE IS THAT THOSE ARE ALL  
21 WORKING AS INTENDED AND HAVE REDUCED THE RISK.  
22 AT THE SAME TIME WE WERE COMPLETING THIS  
23 STUDY TO DETERMINE TO FIX -- THE LONG-TERM FIX FOR THE  
24 STRUCTURES, SO WE WENT TO THAT STUDY. WE COMPLETED THE  
25 STUDY. WE GOT THE APPROVAL TO REPLACE THE STRUCTURES.

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1 AND THEN CONGRESS FUNDED THE REPLACEMENT AS WELL. AND  
2 WE AWARDED THE CONTRACT LAST YEAR AND THAT CONSTRUCTION  
3 HAS STARTED. THE DESIGN WAS COMPLETED LAST SUMMER. AND  
4 SHORTLY THEREAFTER WE AWARDED THE CONTRACT TO GRANITE.  
5 WE HAVE GOT THE PROJECT MANAGER FROM  
6 GRANITE HERE TODAY. SO IT'S A \$72 MILLION CONTRACT.  
7 THIS PROJECT, BECAUSE OF THE SIZE OF IT AND BECAUSE OF  
8 THE CONSEQUENCE, THE CITY OF HOUSTON HAS BEEN LABELED A  
9 MEGA PROJECT. SO AS A RESULT, WE HAVE ADDITIONAL LEVELS  
10 OF REVIEW. AND WE DO THAT ON A QUARTERLY BASIS.  
11 SO WE HAVE THE INVOLVEMENT OF OUR  
12 HEADQUARTERS IN WASHINGTON, D.C. AND OUR DIVISION  
13 HEADQUARTERS IN DALLAS THAT OVERSEE THE CONSTRUCTION OF  
14 THIS PROJECT. IT'S THAT IMPORTANT. SO WE HAVE THREE  
15 DIFFERENT LEVELS OF REVIEW AS WE MOVE FORWARD.  
16 AND THE GOAL REALLY IS TO KEEP THAT PROJECT  
17 ON TRACK, BE ABLE TO QUICKLY ADDRESS ANY ISSUES OR  
18 CONCERNS AND THEN COMPLETE THE PROJECT MAY 2019. WE'RE  
19 IN OUR CURRENT TIMELINE FOR COMPLETION.  
20 AS I MENTIONED, WE'VE GOT SOME  
21 THREE-DIMENSIONAL TOOLS YOU CAN LOOK AT. AFTER WE  
22 FINISH WITH THE BRIEFING AND QUESTIONS AND ANSWERS, YOU  
23 WILL GET A CHANCE TO LOOK BACK THERE IN THE CORNER AT  
24 THIS. BUT ESSENTIALLY WHAT YOU'RE GOING TO SEE IS THIS  
25 IS THE EXISTING STRUCTURE RIGHT NOW WITH THE STREAM

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1 CHANNEL THAT FLOWS OUT. AND WHAT WE'RE GOING TO BE  
2 DOING WITH BOTH STRUCTURES, WE'LL BE CONSTRUCTING A NEW  
3 STRUCTURE IMMEDIATELY ADJACENT TO IT.  
4 SO WE'LL SHOW YOU SOME MAPS THAT WILL  
5 HIGHLIGHT EXACTLY WHERE THOSE ARE GOING IN. AND THEN  
6 ONCE THIS NEW STRUCTURE IS COMPLETELY IN, THEN WE WOULD  
7 BE REMOVING THE EXISTING STRUCTURE AND FILLING IT IN.  
8 SO LET'S TAKE IT DAM BY DAM. HERE'S  
9 ADDICKS WHERE WE ARE. YOU PROBABLY CROSSED NOT TOO FAR  
10 FROM THE OUTLET IF YOU CAME UP THE ELDRIDGE PARKWAY.  
11 BUT ESSENTIALLY WHAT WE HAVE IS THE NEW  
12 STRUCTURES. THIS IS SOUTH, BY THE WAY, DOWN HERE.  
13 NORTH IS THIS WAY. THE EXISTING STRUCTURE IS HERE. THE  
14 NEW STRUCTURE IS JUST GOING TO BE JUST TO THE WEST OF  
15 IT. AND WE'LL BE BUILDING A COFFER DAM AROUND THIS  
16 AREA. SO THAT WHILE CONSTRUCTION IS TAKING PLACE, WATER  
17 WILL NOT BE ABLE TO AFFECT THE CONSTRUCTION PROJECT.  
18 SO AS FAR AS WHAT YOU'LL SEE OUT THERE IF  
19 YOU'RE WALKING AROUND, THERE'S A BORROW AREA. THIS IS  
20 WHERE THE MATERIAL IS BEING HARVESTED FOR THE COFFER  
21 DAM. THERE IS A HAUL ROAD THAT IS TRYING TO BE  
22 CONSTRUCTED. IT SHOWS THE FLIGHT OF THAT. THEN IS THE  
23 LOW-WATER CROSSING THAT HAS ALREADY BEEN BUILT AS WELL.  
24 SO THAT CONSTRUCTION HAS STARTED AND THAT ALLOWS US TO  
25 START BUILDING THE COFFER DAM AROUND HERE. ONCE WE

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1 BUILD THAT COFFER DAM, THEN WE CAN CUT THE LEVY THERE  
2 AND START THE CONSTRUCTION OF THE STRUCTURE ITSELF.  
3 NEXT SLIDE. SO JUST SOME PICTURES. SEE  
4 THAT BORROW AREA I MENTIONED. SO YOU WILL SEE HEAVY  
5 EQUIPMENT OUT THERE WORKING. NOW, THIS AREA DOESN'T  
6 FLOOD, IF YOU DIDN'T KNOW THAT. THAT'S GOING TO BE ONE  
7 OF OUR GREATEST CHALLENGES. BECAUSE WHEN IT FLOODS, OUR  
8 PROCESS IN THE RESERVOIR. SO THAT'S GOING TO SLOW US  
9 DOWN. SO WE'RE PRAYING FOR GOOD WEATHER AS FREQUENTLY  
10 AS POSSIBLE TO MINIMIZE THE DELAYS.  
11 NEXT SLIDE. HERE'S A HAUL ROAD FOR  
12 CONSTRUCTION. GOOD SHOT OF IT HERE. PART IT RIGHT DOWN  
13 BY THE POWER LINES.  
14 THE NEXT SLIDE HAS LOW-WATER CROSSING. YOU  
15 CAN SEE THAT'S CONSTRUCTION. IT LOOKS LIKE A VEHICLE IS  
16 THERE. TRAFFIC WILL SLOW THE HEAVY EQUIPMENT THAT'S  
17 MOVING THAT MATERIAL DOWN TO THE COFFER DAM AREA.  
18 OVER ON BARKER, A LITTLE BIT DIFFERENT  
19 HERE. WE HAVEN'T DONE AS MUCH WORK YET. HERE IS THE  
20 OUTLET STRUCTURE HERE. SO THIS IS EAST. THIS IS WEST.  
21 AND JUST NORTH OF THE EXISTING STRUCTURE IS WHERE THE  
22 NEW STRUCTURE WILL BE. SO THE COFFER DAM WILL GO OUT  
23 HERE.  
24 YOU NOTICE THAT THIS IS FLOODED RIGHT NOW  
25 IN THIS PICTURE. THIS IS AN OLD PICTURE. COUPLE DAYS

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1 AGO IT WASN'T FLOODED AT ALL. THE BORROW SIDE IS RIGHT  
2 ABOUT IN HERE. AND THEN WE DO HAVE SOME STAGING AREAS  
3 THAT IS A LITTLE BIT OFF THE MAP HERE. I THINK WE HAVE  
4 SOME SLIDES OF THAT AS WELL. SO THIS IS THE STAGING  
5 AREA. THAT IS JUST SOUTH OF THE OUTLET AREA.  
6 WELL, THE MOST NOTICEABLE IMPACT FOR MANY  
7 FOLKS IS GOING TO BE THE IMPACT ON RECREATIONAL USE OF  
8 THESE FACILITIES. YOU CAN'T DO A CONSTRUCTION PROJECT  
9 WITHOUT HAVING SOME KIND OF IMPACT, UNFORTUNATELY.  
10 BECAUSE I KNOW THESE AREAS ARE BOTH HEAVILY USED FOR  
11 HIKING AND BIKING, JUST GETTING OUT THERE AND WALKING  
12 AROUND.  
13 HERE IS THE AREAS THAT WE HAVE IDENTIFIED  
14 THAT WILL BE IMPACTED. HERE IS ADDICKS. AGAIN, THE  
15 OUTLET IS RIGHT IN HERE. SO AS WE GOING TO START  
16 BUILDING THAT COFFER DAM, WE'RE GOING TO HAVE TO CLOSE  
17 THESE TRAILS. THERE IS ACTUALLY SOME OTHER CONSTRUCTION  
18 GOING ON HERE THAT IS GOING TO IMPACT THE TRAIL. BUT  
19 THOSE AREAS ARE GOING TO BE CLOSED STARTING IN APRIL.  
20 SO NEXT MONTH YOU'RE GOING TO SEE THAT.  
21 THEN OVER ON BARKER, THE SAME KIND OF ISSUE  
22 HERE. BARKER IS A LITTLE BIT DIFFERENT BECAUSE WE ARE  
23 CONSTRUCTING A BYPASS ROUTE HERE TO ALLOW TRAFFIC TO  
24 KIND OF BYPASS THE AREA SO THAT YOU CAN STILL GET AROUND  
25 THE AREAS THAT HAVE BEEN CUT OFF. BUT, AGAIN, THAT WILL

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1 ALSO BE CLOSING IN APRIL. THE BYPASS ROUTE WILL BE  
2 ESTABLISHED IN THE FALL. SO WE DON'T HAVE A HARD DATE  
3 YET ON THAT.  
4 THE EXISTING ROUTE HERE WILL STILL BE OPEN  
5 INTO THE FALL. SO THIS WILL CLOSE AT THE SAME TIME WE  
6 OPEN UP THE NEW BYPASS ROUTE.  
7 AS I MENTIONED AFTER WE PUT IN THE NEW  
8 OUTLETS, WE GOT TO START LOOKING AT THE FUTURE. SO THE  
9 FIRST STEP IS TO EVALUATE THE WORK WE DID. SO THIS IS  
10 WHERE WE'LL BE DOING A FORMAL EVALUATION TO LOOK AT THE  
11 RISK IN TERMS OF CONSEQUENCE AND IN TERMS OF THE  
12 LIKELIHOOD OF IT OCCURRING. THE CONSEQUENCE WE CAN'T  
13 CHANGE UNLESS PEOPLE MOVE OUT OF HOUSTON. AND THAT'S  
14 NOT GOING TO HAPPEN FROM EVERYTHING THAT I'VE SEEN. SO  
15 THE CONSEQUENCE WILL CONTINUE TO EITHER STAY THE SAME OR  
16 INCREASE.  
17 SO REALLY WHAT WE'RE ADDRESSING IS THE  
18 LIKELIHOOD OF SOMETHING HAPPENING. SO THE IDEA IS WE'RE  
19 GOING TO LOWER THAT BY HAVING THESE NEW STRUCTURES IN  
20 PLACE. AND WE'LL DO THE EVALUATION. AND I SUSPECT THAT  
21 WE'LL EVALUATE AND WE'LL HOPEFULLY DETERMINE THAT THE  
22 RISK HAS BEEN REDUCED. AND THEN CONGRESS WILL START  
23 ALLOCATING RESOURCES TO OTHER PROJECTS THAT HAVE HIGHER  
24 RISK.  
25 SO THE GOOD THING ABOUT HAVING HIGHER RISK

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1 DAMAGE IS WE GOT THE RESOURCES FOR IT. AND SO WE'RE  
2 KIND OF FIRST IN LINE. SO THAT'S GOOD NEWS. AND A LOT  
3 OF THAT IS TIED TO THAT CONSEQUENCE BECAUSE OF HAVING  
4 SUCH A LARGE URBAN AREA.  
5 IN ADDITION TO THAT, WE NOTE THAT THERE IS  
6 OTHER PROBLEMS WITH RESPECT TO THE STRUCTURES. SO WE  
7 ALWAYS WANT TO LOOK INTO THE FUTURE TO SEE WHAT ELSE WE  
8 NEED TO DO.  
9 ONE OF THE CHALLENGES, AS YOU SAW ON THE  
10 ONE MAP, THE ORGANIZED AREA AND THE DEVELOPMENT HAS  
11 OCCURRED ALL THE WAY AROUND THE RESERVOIRS NOW. SO IF  
12 YOU LIVE UPSTREAM OF THOSE RESERVOIRS, AND YOU MAY NOT  
13 BE ON GOVERNMENT PROPERTY. YOU PROBABLY AREN'T ON  
14 GOVERNMENT PROPERTY. THERE IS POTENTIAL THAT AREA COULD  
15 STILL FLOOD AS A RESULT OF THE WATER BEING IMPOUNDED.  
16 SO THAT'S A CONCERN THAT WE HAVE.  
17 AND THEN THERE IS SOME OTHER DRAINAGE  
18 FEATURES ADJACENT TO THE DAM THAT WE NEED TO LOOK AT AS  
19 WELL.  
20 SO WE'RE GOING TO BE LOOKING AT THOSE IN  
21 THE FUTURE. LAST YEAR WE REQUESTED A NEW FEASIBILITY  
22 STUDY. WE DID NOT GET FUNDING FOR IT FOR 2017. BUT  
23 WE'LL CONTINUE TO LOOK AT THAT FOR 2018 FUNDING. WE DO  
24 HAVE A GOOD PARTNER. I'M PLEASED TO SAY HARRIS COUNTY  
25 FLOOD CONTROL DISTRICT HAS SIGNED UP TO BE OUR PARTNER

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1 IN STUDY. SO THEY WILL BE A COST-SHARING PARTNER TO  
2 LOOK AT HOW WE CAN IMPROVE THE OVERALL SYSTEM GOING INTO  
3 THE FUTURE.  
4 ONE OF THE THINGS THAT WE DO FROM BEGINNING  
5 IS WE LOOK AT VARIOUS ALTERNATIVES. AND SO THAT'S WHERE  
6 WE'RE GOING TO BE LOOKING FOR FEEDBACK FROM EXPERTS,  
7 FROM THE COMMUNITY. SO THAT'S GOING TO BE AN  
8 OPPORTUNITY FOR US TO SEE WHAT IDEAS ARE OUT THERE IN  
9 THE FEDERAL INTEREST. SO WE'LL TAKE ALTERNATIVES.  
10 WE'LL SEE IF THEY ARE IN THE FEDERAL INTEREST AND THEN  
11 WE'LL BE ABLE TO JUSTIFY OUR STUDY AND GO TO THE NEXT  
12 PHASE OF IMPROVING ADDICKS AND BARKER.  
13 CAN I GET THE NEXT SLIDE. OKAY. SO THIS  
14 IS THE STUDY I WAS REFERRING TO. IT'S CALLED A  
15 SECTION 216 STUDY. AND AS I SAID, WE'RE GOING TO BE  
16 ADDRESSING SOME OF THE KNOWN ISSUES THAT WE HAVE OUT  
17 THERE, BUT THERE IS PROBABLY SOME OTHER ISSUES AS WELL  
18 THAT WE WANT TO CONSIDER AS WE LOOK AT THAT STUDY  
19 CAREFULLY. OKAY.  
20 SO, YOU KNOW, KIND OF -- AS WE KIND OF  
21 CLOSE MY PORTION OF IT, WE'LL OPEN UP HERE TO THE PANEL.  
22 THIS IS HOW I KIND OF VIEW THE BENEFITS OF THE PROJECT  
23 FOR THE PEOPLE OF HOUSTON. YOU KNOW YOU GOT THIS GREAT  
24 CITY GROWING EXTREMELY RAPIDLY. AND THAT RISK OVER TIME  
25 HAS BEEN REDUCED. I MEAN, WE HAD FLOODING. SO IT'S NOT

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1 GOING TO ELIMINATE RISK, BUT IT DOES REDUCE IT.  
2 GO BACK. WE'RE NOT FINISHED HERE. OVER  
3 THE LIFETIME OF THE PROJECT, BASED ON ALL THE EVENTS  
4 THAT HAVE HAPPENED, WE TALLIED UP THE ESTIMATED DAMAGES  
5 THAT HAVE BEEN PREVENTED AND IT'S IN EXCESS OF \$10  
6 BILLION.  
7 SO, OF COURSE, THAT'S JUST -- THAT'S  
8 INFLATED FOR CURRENT YEAR'S VALUE?  
9 MR. RICHARD LONG: YES.  
10 COL. PANNELL: SO \$10 BILLION IN TODAY'S  
11 MONEY. AND WE HAVE REDUCED RISK OF LOSS OF LIFE AND  
12 PROPERTY. AND, OF COURSE, WE'VE ALSO PROVIDED SOME  
13 RECREATIONAL OPPORTUNITIES BECAUSE, YOU KNOW, HOUSTON IS  
14 PRETTY URBANIZED. THERE IS NOT A LOT OF GREEN SPACE  
15 LEFT. HERE IS TWO AREAS THAT HOPEFULLY WILL BE PRETTY  
16 GREEN FOR THE FUTURE, UNLESS WE DECIDE TO REMOVE THEM AT  
17 SOME POINT, WHICH I DON'T THINK IS GOING TO HAPPEN ANY  
18 TIME SOON.  
19 SO LAST SLIDE IS KIND OF A SUMMARY SLIDE.  
20 MOST OF THE TIME THESE ARE JUST DRY RESERVOIRS. MOST OF  
21 THE PUBLIC DOESN'T REALIZE WHAT THEY ARE EVEN HERE FOR.  
22 SO ONE OF THE PURPOSES FOR US TO DO THESE SORTS OF  
23 MEETINGS IS JUST TO GET THE WORD OUT. AND SO IT'S GREAT  
24 TO BE ABLE TO WORK WITH OUR PARTNERS HERE, THE PRECINCT  
25 AND THE COMMISSIONER, TO ALLOW THE DEVELOPMENT TO OCCUR

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1 WITHIN THE CONFINES OF IT, SUCH AS THIS BUILDING. BUT,  
2 YOU KNOW, EVERYTHING IS DESIGNED IN HERE WITH THE IDEA  
3 THAT IT COULD POTENTIALLY BE FLOODED, TYPICALLY THE  
4 BUILDING WE'RE IN RIGHT NOW.  
5 THE PUBLIC SAFETY WILL ALWAYS BE OUR NUMBER  
6 ONE PRIORITY. WE'VE GOT THE RISK REDUCTION MEASURES IN  
7 PLACE. THEY ARE WORKING AS INTENDED. AND NOW WE'RE  
8 PUTTING IN THE LONG-TERM FIX. SO WE'RE EXCITED ABOUT  
9 THAT. AND WITH THIS PROJECT, AGAIN, I MENTIONED IT'S A  
10 MEGA STUDY.  
11 ONE OF THE OTHER NEAT THINGS WE'RE DOING  
12 WITH THIS IS WE'RE GOING TO HAVE KIND OF STORY BOARD ON  
13 LINE THAT YOU CAN GO TO SEE THE PICTURES AND SEE WHERE  
14 WE ARE ON THE CONSTRUCTION. THE WEBSITE IS RIGHT THERE.  
15 AND SO YOU CAN CLICK ON THAT AND IT'S ACTUALLY ONE OF  
16 THE RESPONSIBILITIES OF WORKING IN CONJUNCTION WITH  
17 GRANITE, OUR CONTRACTOR. HE'LL BE PROVIDING, FEEDING  
18 INFORMATION INTO THAT STORY BOARD SITE.  
19 SO WE'RE EXCITED ABOUT THAT. SOMETHING WE  
20 HAVEN'T DONE ON PROJECTS BEFORE. SO THIS IS ONE WHERE  
21 YOU'LL BE ABLE TO HAVE A PLACE THAT YOU CAN GO TO SEE  
22 EXACTLY WHERE WE ARE ON THE PROJECT AND HOW CONSTRUCTION  
23 IS GOING.  
24 SO WITH THAT, IT'S TIME FOR QUESTIONS FROM  
25 YOU ALL. WE'VE GOT -- THE ENTIRE PANEL IS NOW HERE. SO

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1 I GET TO SHUT UP FOR A WHILE AND SIP A LITTLE WATER.  
2 THEY GET TO ANSWER ALL THE HARD QUESTIONS THAT ARE  
3 SURELY COMING. THIS TIME, IF YOU GO TO THE MIKE IN THE  
4 BACK, THOSE OF YOU WHO WOULD LIKE TO ASK QUESTIONS,  
5 RAISE YOUR HAND.  
6 WHEN YOU ASK YOUR QUESTION, WE ASK THAT YOU  
7 STATE YOUR NAME FOR THE RECORDER THAT WE HERE BEFORE YOU  
8 START.  
9 TOM SHERRICK: I'M TOM SHERRICK. I LIVE IN  
10 THE NEIGHBORHOOD OF BRIAR HILLS, JUST SOUTH OF THE BAYOU  
11 IN THE EAST AND BARKER DOWN THERE. IT LOOKS LIKE THE  
12 PROJECT HERE IS BASICALLY JUST TO REPLACE THE  
13 STRUCTURES, WHICH IS GOOD, BUT YOU'RE NOT CHANGING THE  
14 INFLOW AMOUNT OR THE OUTFLOW IS CONTROLLED BY WHAT IS  
15 HAPPENING DOWNSTREAM, WHICH IS GOOD. WHAT ABOUT THE  
16 EARTH AND DAMS THEMSELVES, THE CONDITION OF THOSE?  
17 MR. VILLAGOMEZ: WE CONDUCT PERIODIC  
18 INSPECTIONS OF THE DAMS. IN FACT, MOST RECENTLY WE ARE  
19 REQUIRED NOW BY REGULATION TO PHYSICALLY WALK THE DAMS.  
20 LET ME SAY PEOPLE AREN'T REAL EXCITED ABOUT HAVING TO  
21 WALK THE TOTAL EMBANKMENT. BARKER IS IN EXCESS OF 12  
22 MILES, 13 MILES OF EARTH AND DAM MAINTENANCE. AND  
23 ADDICKS IS A LITTLE OVER 11 MILES. AND THEY WALK IT.  
24 THEY DO THESE PERIODIC INSPECTIONS AS REFERRED TO.  
25 IN ADDITION TO THAT, WE HAVE PERSONNEL.

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1 RICHARD CAN VOUCH FOR IT. THOSE OF WHO YOU HAVE TALKED  
2 TO RICHARD KNOW THAT THEY RIDE THE EMBANKMENTS ON A  
3 DAILY BASIS AND THE OBSERVE WHAT IS GOING ON. WE GET  
4 FEEDBACK FROM THE COMMUNITY ON A REGULAR BASIS.  
5 SO THE CONCERN IN REGARDS TO THE EMBANKMENT  
6 ITSELF, I WOULD SAY THAT AT THE CURRENT TIME WE DO NOT  
7 SEE THAT THERE ARE ISSUES WITH THE EARTH AND EMBANKMENT  
8 ITSELF. OKAY.  
9 COL. PANNELL: IN FACT, ONE OF THE WALKERS  
10 BACK THERE TWO ROWS BEHIND YOU, DR. CHOW IS A ENGINEER.  
11 HE'S BEEN OUT THERE WALKING THESE. SO IF YOU HAVE  
12 QUESTIONS, MAYBE IN A BREAKOUT, YOU CAN ASK HIM  
13 SPECIFICALLY. HE KNOWS THE AREA VERY WELL.  
14 MR. SHARP: MY NAME IS MICHAEL SHARP. I  
15 LIVE ON LEGEND LANE, WHICH IS RIGHT ON BUFFALO BAYOU  
16 WHERE WW 153 LETS INTO IT. MY QUESTIONS IS PROBABLY  
17 DIRECTED AT HARRIS COUNTY FLOOD CONTROL. WE FLOOD AT  
18 EVERY MAJOR RAIN EVENT, EVERY SINGLE ONE. WE CAN'T GET  
19 UP OUR STREET AND THE HOUSES FLOOD. PROBABLY IN THE  
20 LAST COUPLE YEARS OVER A MILLION DOLLARS JUST ON OUR  
21 LITTLE STREET. THE REASON IS RUNOFF INTO 153 AND THEN  
22 AS THE WATER IS LET OUT OF THE SPILLWAY DOWN BUFFALO  
23 BAYOU, THEY BASICALLY CONGREGATE AT OUR HOUSE AND WATER  
24 STARTS ACTUALLY BACKING UP INTO 153 OUT OF BUFFALO  
25 BAYOU.

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1 SO MY QUESTION IS: WHO CONTROLS THE OUTLET  
2 RATE WHEN YOU MAKE THAT DECISION? AND BECAUSE WE'VE  
3 NOTICED THAT SOMETIMES IT WILL HAVE A RAIN EVENT AND YOU  
4 WON'T LET IT OUT FOR A FEW DAYS. THAT HELPS US. BUT  
5 WHEN YOU LET IT OUT DURING THE RAIN EVENT WHERE IT'S  
6 COMING BACK BOTH WAYS, WE'RE REALLY LIKE A PERFECT  
7 STORM. IT'S A REAL PROBLEM FOR US.  
8 SO I GUESS MY QUESTION IS: WHO CONTROLS  
9 THE RATE OF OUTLET THERE? AND THEN DOES HARRIS COUNTY  
10 PLAN TO HELP WITH OTHER FLOOD ISSUES IN THAT AREA?  
11 MR. RICHARD LONG: I'LL PUT MY HAND UP  
12 FIRST. RICHARD LONG. I PUT MY HAND UP FIRST. WE'RE  
13 CONTROLLING THE OUTLET RATE. TODAY RIGHT NOW THE DAM IS  
14 CLOSED BECAUSE OF THIS PREDICTION OF HEAVY RAINFALL  
15 HERE. SO WE MAKE SURE WE HAVE THE DAM CLOSED WHEN WE  
16 HAVE HEAVY RAIN PREDICTIONS OR WHEN THEY ARE OCCURRING.  
17 ANY FLOODING THAT YOU'VE SEEN ON 153 HAS BEEN A RESULT  
18 OF WATER FALLING BELOW THE DAM. OUR RELEASES DO NOT  
19 OCCUR DURING A RAIN EVENT. WATER MAY BACK UP INTO 153  
20 WHEN WE'RE RELEASING, BUT THAT'S NOT AT A FLOOD LEVEL.  
21 THE CONDITION OF 153, THEN THAT'S STEVE'S TURN.  
22 MR. FITZGERALD: ALL BUT A FEW OF OUR  
23 CHANNELS IN HARRIS COUNTY DRAIN PURELY BY GRAVITY. AND  
24 THERE IS NO GATES OR ANYTHING ELSE ON THEM. JUST  
25 WHATEVER RUNS FROM THE WATERSHED IS WHAT COMES DOWN THE



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1 CHANNELS. SO THERE IS NOTHING WE CAN DO DURING THE  
2 STORM LIKE ON LOCAL BAYOU. AND AS FAR AS I KNOW, I  
3 DON'T BELIEVE WE HAVE ANYTHING PLANNED FOR W 153. BUT  
4 IF YOU LIVE RIGHT AT THE MOUTH, THERE COULD BE SOME  
5 OTHER THINGS GOING ON THERE BESIDES INTERACTION OF THE  
6 TWO CHANNELS LIKE YOU SAID.  
7 MR. SHARP: MAYBE TO FOLLOW UP, DO YOU ALL  
8 KNOW OF ANYTHING THAT WE CAN DO AS HOMEOWNERS THAT CAN  
9 HELP ALLEVIATE THAT? IF YOU'RE SAYING -- IF I GET THIS  
10 CORRECT, YOU ALL ARE SAYING YOU'RE NOT WITHHOLDING. SO  
11 EVERYTHING THAT IS COMING DOWN THERE IS OVERFLOW FROM  
12 THE DAM. YOU CAN'T WITHHOLD IT.  
13 MR. RICHARD LONG: IT'S NOT OVERFLOW. IT'S  
14 FALLING BELOW IT. IT'S RAINFALL THAT IS OCCURRING BELOW  
15 THE DAM ITSELF SO WE'RE STOPPING EVERYTHING THAT FALLS  
16 ABOVE THE DAM. IF IT FALLS BELOW THE DAM, THERE IS  
17 NOTHING WE CAN DO TO CONTROL IT:  
18 MR. FITZGERALD: I WOULD LIKE TO GET YOUR  
19 ADDRESS AND FIND YOUR HOUSE ON THE AREA. WE CAN TALK.  
20 MS. CHADWICK: I'M SUSAN CHADWICK. I HAVE  
21 A QUESTION ABOUT HOW THE REPAIRS TO THE DAM ARE GOING TO  
22 CHANGE OR AFFECT THE WAY THE WATER IS RELEASED FROM THE  
23 DAM.  
24 MR. VILLAGOMEZ: THE OPERATIONS OF THE DAM  
25 ARE NOT GOING TO BE ALTERED BECAUSE OF NEW STRUCTURES.

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1 THE STRUCTURES ARE DIFFERENT IN SIZE. BUT AS FAR AS  
2 THEIR OPERATIONS, THEY WILL STILL BE CONTROLLED BY  
3 THE -- POINT DOWN STREAM AT PINEY POINT. RIGHT NOW I'M  
4 AWARE THE FOLKS UNDERSTAND THAT 2,000 CFS IS NORMAL  
5 FLOW. IT'S MEASURED AT PINEY POINT. SO OUR RELEASES  
6 ARE NOT GOING TO EXCEED WHAT CURRENTLY OCCURS, WHETHER  
7 IT'S NORMAL DISCHARGES OR UNDER EMERGENCY CONDITIONS.  
8 THE SIZE OF THE STRUCTURES, WE MAY HAVE TO OPEN THE GATE  
9 DIFFERENT SIZES BECAUSE RIGHT NOW WE HAVE CONDUITS THAT  
10 ARE RECTANGULAR. THERE IS FIVE AT EACH FACILITY. THE  
11 NEW STRUCTURES WILL BE CIRCULAR. OKAY. THEY WILL BE  
12 THREE CONDUITS.  
13 SO, OBVIOUSLY, BECAUSE OF THE SIZE, WHERE  
14 WE MAY HAVE BEEN ABLE TO OPEN GATES ALL FIVE AT CERTAIN  
15 HEIGHTS TO GET A CERTAIN RATE, THE CIRCULAR ONES, THAT'S  
16 GOING TO DIFFER HOW WIDE THEY'RE GOING TO BE OPEN.  
17 BUT AS FAR AS THE AMOUNT OF WATER BEING  
18 RELEASED, THAT WILL NOT BE ALTERED. GO AHEAD.  
19 MS. CHADWICK: I THOUGHT THAT YOU HAD TO  
20 KEEP THE WATER BELOW A CERTAIN LEVEL BECAUSE OF THE  
21 DANGER OF POSSIBLE FAILURE. I ASSUME THAT YOU WOULD BE  
22 ABLE TO PUT -- IMPOUND MORE WATER BEHIND THE DAM AND  
23 RELEASE IT IN A DIFFERENT FLOW RATE.  
24 MR. VILLAGOMEZ: NO. THE INTENT OF THE  
25 PROJECT THAT WE ARE CURRENTLY IMPLEMENTING, THE

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1 CONSTRUCTION OF THE NEW STRUCTURES ARE TO ENSURE THE  
2 INTEGRITY OF THE DAM ITSELF. OKAY. WE IDENTIFIED  
3 ISSUES WITH THE EXISTING STRUCTURES. THE NEW STRUCTURES  
4 WILL ADDRESS THOSE ISSUES AND BRING THE REDUNDANCY OR  
5 ROBUSTNESS OF THE OUTLET WORK TO BE REFERRED TO, TO THE  
6 CURRENT STATE OF THE ART. WE REFER TO IT.  
7 BUT AS FAR AS ALTERING THE RELEASES AND AS  
8 FAR AS THE ELEVATION, ALL THAT IS STILL STANDARD  
9 OPERATING PROCEDURE AS WE CURRENTLY ARE DOING. OKAY.  
10 THE ONLY DIFFERENCE IS THAT WE WILL SEE IN OUR  
11 OPERATIONS MANUAL AGAIN IS THE OPENING OF THE GATES  
12 BECAUSE OF THE CHANGING OF THEIR CONFIGURATION. OKAY.  
13 AT THE END OF THE DAY, IF WE ARE REQUIRED TO RELEASE  
14 2,000 CFS, OR THAT'S OUR LIMIT, OUR NEW STRUCTURE CANNOT  
15 RELEASE ANY MORE THAN THAT.  
16 MS. SUSAN CHADWICK: 3,000 CFS, WILL YOU  
17 CONTINUE TO RELEASE THAT?  
18 MR. RICHARD LONG: THE MAY EVENT CAUSED AN  
19 EXTREMELY HIGH POOL ELEVATION. AS WE WERE APPROACHING  
20 THESE HIGHER POOL ELEVATIONS, WE HAVE NOT SEEN HOW THE  
21 DAM WILL PERFORM ABOVE THE POOL OF RECORD. IT DID  
22 CONCERN US. SO WE REQUESTED PERMISSION TO GO UP TO  
23 3,000.  
24 IT WAS A ONE-TIME GRANTED PERMISSION. WE  
25 DID IT JUST THAT ONE TIME DURING THAT MAY EVENT. WE

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1 WOULD HAVE TO ASK PERMISSION TO DO IT AGAIN. AND AT  
2 THIS TIME WE DO NOT ANTICIPATE DOING THAT.  
3 BUT AS RICK INDICATED, THERE ARE NO LIMITS  
4 RIGHT NOW ON THE POOL. WE DON'T WANT BIG POOLS, BUT  
5 THERE IS NO LIMIT ON THE SIZE OF THE POOL THAT WE COULD  
6 ACCOMMODATE IN THE RESERVOIR, OTHER THAN THE CAPACITY OF  
7 THE DAM ITSELF.  
8 MR. FITZGERALD: SECTION 216 STUDY, THAT'S  
9 WHAT WE'RE GOING TO BE CALLING IT, WE HAVE BEEN TALKING  
10 ABOUT POSSIBLE TASKS TO DO WITHIN THAT STUDY FOR QUITE  
11 SOME TIME. AND ONE OF THEM IS TO LOOK AT THE  
12 OPERATIONAL PLAN AND RELEASE RATE WITHIN THAT STUDY IN  
13 THE LARGER CONTEXT OF THE RESERVOIR AS BEING IN THE  
14 WATERSHED AND LOOKING UPSTREAM AND DOWNSTREAM. SO  
15 ANYTHING LONG TERM WOULD BE DONE WITHIN THE CONTEXT OF  
16 THAT STUDY.  
17 COL. PANNELL: THAT'S A CURRENT OPERATIONS  
18 CONDITION. THAT'S 2,000 CFS AT PINEY POINT. WHEN WE  
19 REQUEST PERMISSION, WE GO TO OUR HIGHER HEADQUARTERS IN  
20 DALLAS TO RELEASE -- THE AUTHORITY TO RELEASE MORE.  
21 BUT, YOU KNOW, IF YOU LOOK AT THE OVER THE YEARS, WE'VE  
22 REDUCED THE RELEASE QUANTITY. I THINK IT STARTED  
23 AROUND -- WHAT'S -- TO RELEASE, LIKE 12,000?  
24 MR. RICHARD LONG: WHEN THE DAMS WERE  
25 CONSTRUCTED, THEY HAD AN UNCONTROLLED RELEASE OF ABOUT

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1 17,000 CUBIC FEET PER SECOND. WE REDUCED THAT WHEN WE  
2 DID OUR FIRST GATING ACTIVITY. AND THEN WHEN WE DID OUR  
3 FINAL GATING ACTIVITY, OUR SAFE RELEASE WAS JUDGED TO BE  
4 6,000 CUBIC FEET IN THE EARLY '70S AT THE REQUEST OF THE  
5 COMMUNITY. WHEN I SAY THE COMMUNITY, THAT INCLUDES THE  
6 COMMUNITY, CITY OF HOUSTON, HARRIS COUNTY. WE REDUCED  
7 THAT RELEASE RATE DOWN TO 2,000 AND THAT HAPPENED IN  
8 EARLY '70S AND THAT'S WHERE WE ARE TODAY.  
9 COL. PANNELL: SO LIKE STEVE FITZGERALD WAS  
10 SAYING, WE WILL TAKE THE OPPORTUNITY TO RELOOK AT IT AS  
11 WE LOOK AT THE FUTURE 216 STUDY:  
12 MR. DODSON: I'M BRIAN DODSON. I LIVE  
13 NORTH OF ADDICKS. I USE THE SPILLWAY QUITE A BIT. AND  
14 I AM CURIOUS WHAT ISSUES -- YOU SAID THERE ARE SOME  
15 KNOWN ISSUES ON THE SPILLWAY. I'M CURIOUS WHAT THOSE  
16 ISSUES ARE.  
17 MR. VILLAGOMEZ: THE COMMANDER MENTIONED  
18 ABOUT GROUND PENETRATING RADAR THAT WAS PERFORMED IN  
19 AROUND 2009, 2010 PERIOD. AT THAT TIME, VOIDS WERE  
20 IDENTIFIED NOT ONLY UNDER THE CONDUIT, BUT ALSO AT SOME  
21 OF THE SPILLWAYS. IN FACT, IN DOING THE STUDY THAT WE  
22 CONDUCTED BETWEEN 2009 AND 2013 AND READING SOME OF THE  
23 HISTORICAL DOCUMENTS, THERE WERE VOIDS THAT OCCURRED  
24 DURING THE CONSTRUCTION. SO THERE HAS BEEN AN ISSUE  
25 WITH VOIDS FOR QUITE A WHILE. RIGHT.

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1 SO WHEN WE DID THE GROUTING, THE INTENT WAS  
2 TO FILL THE VOIDS. OKAY. AND SOMEONE ASKED: DID THAT  
3 NOT CURE THE ISSUE? WELL, AS SUBSTANCE, IT HAS A SHELF  
4 LIFE. SO WE KNOW FOR A FACT THAT THE GROUT IS NOT GOING  
5 TO LAST FOREVER. SO WE KNOW THAT IT HAS A CERTAIN TIME  
6 PERIOD.  
7 THE OTHER ITEM THAT THE COMMANDER MENTIONED  
8 WAS THE STEEL PLATES THAT WERE PLACED ON TOP OF THE  
9 PARABOLIC SPILLWAY. AGAIN, DURING OUR STUDY, IT WAS  
10 DETERMINED THAT UNDER FLOW CONDITIONS, THE HYDRAULIC  
11 JUMP -- WHEN YOU SEE THE WATER COMING OUT OF THE  
12 SPILLWAY AND KIND OF CASCADES, IT'S REAL NICE. BUT FROM  
13 AN ENGINEERING STANDPOINT TO CAUSE ISSUES. UNDER  
14 CERTAIN CONDITIONS IT WOULD REMOVE THE WATER ON TOP OF  
15 THAT PARABOLIC SPILLWAY. AND BECAUSE OF THE CONDITIONS  
16 UNDERNEATH THE SPILLWAY, YOU COULD LIFT THE CONCRETE  
17 SLAB.  
18 SO IN ORDER TO AVOID THAT POTENTIAL ISSUE  
19 OCCURRING, OUR ENGINEERS DESIGNED COUNTERWEIGHTS.  
20 THAT'S BASICALLY WHAT THE STEEL PLATES ARE,  
21 COUNTERWEIGHTS. IF THAT FLOW WERE TO EVER OCCUR, WE  
22 HAVE A HYDRAULIC PUMP THAT FORCES COUNTERING. THE  
23 UPLIFT WOULD BE SUCH THAT WE WOULD NOT LOSE THE SLACK.  
24 THAT'S THE ISSUES THAT WE'VE ADDRESSED AND  
25 WE FEEL PRETTY CONFIDENT THAT THEY WILL SURVIVE DURING

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1 THE PERIOD UNTIL WE CAN GET THE PERMANENT STRUCTURES IN.  
2 MR. DODSON: THE PART I'M INTERESTED IN IS  
3 THE NORTHERN REACH FROM CLAY ROAD.  
4 MR. FITZGERALD: ARE YOU TALKING ABOUT THE  
5 ENDS OF THE SPILLWAY?  
6 MR. DODSON: THE SPILLWAY. I DID NOTICE  
7 THE OTHER DAY ON THE ADDICKS WHEN THERE WAS SOME  
8 CONCRETE BROKEN UP. I'M SURE YOU HAVE SEEN IT. I'M  
9 INTERESTED IN WHAT THE POTENTIAL ISSUES ARE ON THOSE  
10 STRUCTURES.  
11 MR. FITZGERALD: IN 2009, THE ISSUES THAT  
12 WERE IDENTIFIED THAT LED TO THE DAM SAFETY STUDY WERE  
13 HOW THE OUTLET WORKED, SEEPAGE AND -- AND THEN ABSORBING  
14 THE SPILLWAYS, WHICH YOU'RE REFERRING TO. AND THERE IS  
15 WHAT WE REFER TO AS ROLLER-COMPACTED CONCRETE. YOU SAW  
16 SOME OF THE IMAGES ON THE SLIDES. THE KEY TO THE  
17 STRUCTURES IS THEY DON'T TIE THEM TO HIGH GROUND. THE  
18 GROUND ADJACENT TO THEM IS LOWER.  
19 WHEN WE CONDUCTED THE STUDY, WE HAD TO  
20 CONFIRM THE CONDITIONS BOTH OF WHAT WAS OCCURRING AT THE  
21 STRUCTURE AND THEN WE HAD CONCERNS ABOUT THE ENDS OF THE  
22 DAM. WE KNOW THAT WATER AT SOME POINT, DEPENDING ON THE  
23 POOL THAT WE HOLD IN THE RESERVOIRS, WILL FLANK THE  
24 ENDS.  
25 AND SO DURING THE STUDY WE CONDUCTED AN

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1 ANALYSIS TO CONFIRM WHETHER OR NOT THE SPILLWAYS AT THE  
2 ENDS OF THE DAM COULD SUSTAIN THOSE FLOODS. THE STUDY  
3 DETERMINED THAT YES, THE RCC, ROLLER-COMPACTED CONCRETE,  
4 WERE ADEQUATE AND WOULD SUSTAIN AND NOT FAIL UNDER THOSE  
5 FLOODS.  
6 THE CONCERN THERE WAS IF YOU LOST THE  
7 CONCRETE AND START RIPPING YOUR EMBANKMENT UP, AND THEN  
8 YOU HAVE A PRETTY BAD CONDITION. THAT ELEMENT WAS NOT  
9 FURTHER STUDIED AS PART OF THE DAM SAFETY STUDY.  
10 SO OUR CONCERN RIGHT NOW IS THAT WE KNOW  
11 FLOWS CAN COME AROUND THE ENDS OF THE DAM. SHOULD WE  
12 EVER HAVE TO HOLD POOLS TO THAT LEVEL, THAT AS WE  
13 DISCUSSED THAT UNDER THE 216 STUDY, WE WOULD EVALUATE  
14 THAT. AND THAT STUDY WOULD ALLOW US TO LOOK AT NOT ONLY  
15 WHAT COULD OCCUR DOWNSTREAM, BUT ALSO WHAT MAY OCCUR  
16 UPSTREAM OF THE RESERVOIRS.  
17 MR. RICHARD LONG: A LITTLE BIT FURTHER  
18 RIGHT THERE, WE ARE IN THE PROCESS PUTTING TOGETHER A  
19 CONTRACT RIGHT NOW FOR THE REPAIRS ON THAT RCC, ON EACH  
20 END OF EACH DAM. YES, WE KNOW WE HAVE SOME SEPARATIONS  
21 AND CRACKING. AND THOSE ARE GOING TO BE ADDRESSED IN  
22 THE REPAIR CONTRACT THAT SHOULD OCCUR NEXT YEAR.  
23 MR. HUFFMASTER: I'M MICHAEL HUFFMASTER. I  
24 LIVE AT BASICALLY BUFFALO BAYOU AND WILCREST ON THE  
25 SOUTH SIDE. I WANTED TO ASK ABOUT TWO ISSUES. ONE IS

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1 PERTAINING TO THE RELEASE RATES. I THINK WE DID HAVE  
2 TWO INCIDENTS AFTER EACH OF THE HEAVY EVENTS. BECAUSE  
3 BASICALLY THE WATER LEVEL I SAW MATCHED IN OCTOBER WHAT  
4 WE SEEN IN JUNE. NEVER MIND. WHEN YOU GET THE REPAIRS  
5 COMPLETE, YOU EXPECT TO BE ABLE TO RETURN TO THE 2,000  
6 CUBIC-FOOT-PER-SECOND MAX RELEASE RATE.  
7 MR. RICHARD LONG: THAT IS THE RELEASE RATE  
8 RIGHT NOW IN FACT. OKAY. AGAIN, THAT 3,000 WAS A  
9 ONE-TIME EVENT WHEN WE WERE GETTING RID OF THAT MAY  
10 STORM WATER. AND THE MINUTE THAT MAY STORM WATER WAS  
11 OVER, DONE, EMPTY, WE WENT BACK TO 2,000.  
12 MR. HUFFMASTER: IT TOOK YOU ABOUT 10 DAYS,  
13 AS I RECALL.  
14 MR. RICHARD LONG: IT DID TAKE A LITTLE  
15 WHILE TO GET RID OF. SO WE'RE AT 2,000 NOW. WE'LL  
16 REMAIN AT 2,000 THROUGH THE DURATION OF THE CONTRACT AND  
17 IN THE FORESEEABLE FUTURE RIGHT NOW UNTIL WE GET DONE  
18 WITH THE 216 STUDY.  
19 MR. HUFFMASTER: ONE OF THE THINGS OF  
20 CONCERN IS THE RAPID -- WELL, THE EROSION THAT  
21 POTENTIALLY OCCURS IN THE BAYOU DOES OCCUR WHEN WE DROP  
22 THE RELEASE RATE TO ZERO BEFORE A RAIN EVENT. AND THEN  
23 AT THE COMPLETION OF DRAWDOWN, IT DROPS RATHER QUICKLY  
24 AS WELL. I DON'T KNOW IF IT'S POSSIBLE TO TAPER THAT  
25 BACK IN OVER THREE OR FOUR DAYS INSTEAD OF BASICALLY

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1 24 HOURS IT DROPS.  
2 MR. RICHARD LONG: THE PROBLEM WE HAVE  
3 THERE IS WHEN WE HAVE A POOL AND WE START DROPPING IT  
4 OFF AS A RAIN EVENT APPROACHES, PREDICTING THREE DAYS  
5 OUT GETS MORE AND MORE DIFFICULT. AND SO WE DO SLOWLY  
6 SHUT DOWN THE GATE. WHEN I SAY SLOWLY, IT MAY TAKE A  
7 WHOLE DAY, WORK DAY, EIGHT HOURS, TO GET DOWN TO A  
8 SLOWED STATUS BECAUSE WE REALIZE THE SITUATION WITH THE  
9 HEAVY WATER IN THE BANKS CAUSES SOME SLOUGHING IN SOME  
10 AREAS. SO WE ARE AWARE OF THAT AND WE TRY TO SLOWLY  
11 REDUCE IT DOWN. IF WE WENT TO TWO DAYS AND THREE DAYS  
12 TO DO IT, IT WOULD MAKE IT REAL TOUGH TO GET RID OF  
13 THOSE POOLS OF WATER AND TRYING TO PREDICT THAT WEATHER  
14 THREE DAYS OUT GETS VERY DIFFICULT.  
15 MR. HUFFMASTER: MOSTLY ON THE BACK END  
16 THAT I THINK YOU HAVE THE OPPORTUNITY, IF YOU WANTED TO  
17 EXERCISE THAT.  
18 MR. RICHARD LONG: AS WE EMPTY --  
19 COMPLETELY THE RESERVOIR?  
20 MR. HUFFMASTER: YES.  
21 MR. RICHARD LONG: WE CAN LOOK AT THAT.  
22 MR. HUFFMASTER: THE SECOND IS ABOUT  
23 ADDITIONAL DEVELOPMENT REQUIREMENTS. YOU MENTIONED THAT  
24 DEVELOPMENT NOW SURROUNDS THE RESERVOIRS. AND THE GRAND  
25 PARKWAY IS NOW PARTIALLY COMPLETE. AND IF YOU HAVE BEEN

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1 TO THAT SIDE OF TOWN, YOU SEE TREMENDOUS AMOUNT OF DIRT  
2 BEING PLACED IN ANTICIPATION OF DEVELOPMENT. IT WILL  
3 PROCEED.  
4 SO MY QUESTION IS: YOU HAD INDICATED WE  
5 ONLY BUILT TWO OF THE FIVE STRUCTURES THAT WERE INTENDED  
6 TO PROTECT HOUSTON. IS THERE A NEED NOW FOR A THIRD  
7 STRUCTURE? THAT LEVY THAT YOU HAD SUGGESTED THAT WAS AT  
8 CYPRESS CREEK OR SOME OTHER MEANS OF PROTECTING ADDICKS  
9 AND BARKER FROM THE ADDITIONAL RUNOFF THAT WILL COME AS  
10 DEVELOPMENT MOVES WEST.  
11 COL. PANNELL: I THINK ONE THING TO KEEP IN  
12 MIND, THAT PLAN WAS IN 1940 WHEN THE ONLY URBAN AREA WAS  
13 IN DOWNTOWN HOUSTON AREA. SO THE CONDITIONS THAT EXIST  
14 TODAY WERE NEVER CONSIDERED AS PART OF THAT  
15 MULTI-STRUCTURED PLAN. SO I THINK IF WE WERE LOOKING AT  
16 IT, WE WOULD HAVE TO LOOK AT IT COMPLETELY DIFFERENT.  
17 AND WE WOULD HAVE TO START A NEW STUDY TO LOOK AT SOME  
18 OF THOSE OTHER FEATURES.  
19 MR. HUFFMASTER: IS THAT BEING DOWN?  
20 COL. PANNELL: RIGHT NOW THAT IS NOT BEING  
21 DONE.  
22 MR. HUFFMASTER: HOW WOULD THAT -- HOW  
23 WOULD THAT BE PROPOSED OR WHAT WOULD TAKE THAT FORWARD?  
24 COL. PANNELL: SO IN ORDER TO START  
25 SOMETHING LIKE THAT, WHAT NORMALLY HAPPENS IS THAT THE

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1 REQUEST GOES THROUGH A CONGRESSIONAL PROCESS. IT'S  
2 CALLED SECTION 7001. SO THAT WOULD BE WORKING WITH YOUR  
3 POLITICAL LEADERS, WORK THAT THROUGH THEIR CHAIN. AT  
4 THE SAME TIME YOU COULD BE CONTACTING BOTH HARRIS COUNT  
5 FLOOD CONTROL DISTRICT AND OURSELVES. WE ONLY DO  
6 PROJECTS THAT ARE AUTHORIZED AND THAT ARE FUNDED BY  
7 CONGRESS. SO THAT'S THE KIND OF THE LEVEL OF WORK IT  
8 TAKES IN ORDER TO GET A PROJECT MOVING FORWARD.  
9 MR. HUFFMASTER: IS THAT SENSE OF NEED THAT  
10 YOU HAVE TO PROVIDE OR STUDY OR ASSESS NEED FOR  
11 ADDITIONAL --  
12 COL. PANNELL: SO THE FIRST STEP WOULD BE A  
13 STUDY TO EXAMINE WHETHER OR NOT THAT REQUIREMENT EXISTS,  
14 GIVEN THE CURRENT -- NOT JUST THE RESERVOIRS, BUT THE  
15 SYSTEM THAT HARRIS COUNTY FLOOD CONTROL DISTRICT  
16 MAINTAINS AS WELL.  
17 SO, FOR EXAMPLE, WE KNOW THAT THE AREA  
18 AROUND CYPRESS CREEK IS A CONCERN. SO THAT WOULD  
19 PROBABLY BE THE NEXT AREA THAT WE WOULD LOOK AT.  
20 MR. HUFFMASTER: THANK YOU.  
21 MR. WINSTON: BYRON WINSTON. IS THERE A  
22 RELATIONSHIP BETWEEN THE UPSTREAM DEVELOPMENT THAT  
23 CREATES THAT INFLOW, FOR LACK OF A BETTER WORD, ON THE  
24 RESERVOIR, SOME OF THE ISSUES THAT YOU SEE IN THE  
25 RESERVOIR OR IS IT JUST MOSTLY A CONSEQUENCE OF AGING?

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1 AND IF THE FORMER IS TRUE, YOU KNOW, NCF BE WORKING WITH  
2 DEVELOPERS AND HOMEOWNERS WITHIN THAT AREA TO SORT OF  
3 HELP REDUCE STORM FLOW INTO THE RESERVOIR, LIKE A  
4 TEMPORARY BUILDING POND UPSTREAM, ETCETERA.  
5 COL. PANNELL: YOU WANT TO TAKE THAT,  
6 STEVE?  
7 MR. FITZGERALD: SURE. IN HARRIS COUNTY  
8 FLOOD CONTROL DISTRICT, WE HAVE HAD A DETENTION POLICY  
9 SINCE 1984 FOR NEW DEVELOPMENT IN HARRIS COUNTY. AND SO  
10 ALL OF THE NEW DEVELOPMENTS UPSTREAM HAVE TO SHOW NO  
11 ADVERSE IMPACT. MOST OF THEM PUT SOME KIND OF DETENTION  
12 SYSTEM. WE HAVE A FEW REGIONAL SYSTEMS. ONE REGIONAL I  
13 GUESS ON LANGHAM CREEK.  
14 BUT THAT IS A REQUIREMENT. AND WE'RE ALSO  
15 CURRENTLY LOOKING AT KIND OF UPDATING THOSE REQUIREMENTS  
16 FOR THE ADDICKS AND BARKER RESERVOIRS, PRIMARILY THE  
17 ADDICKS, BECAUSE WE KNOW THAT WITH THE DEVELOPMENT, IT  
18 CAN INCREASE THE AMOUNTS OF FLOW. IT CAN DEFINITELY  
19 INCREASE THE SPEED, AS RICHARD NOTES. HE ALWAYS TELLS  
20 ME HOW FAST IT COMES IN. BUT EVENTUALLY -- YOU KNOW,  
21 THE RESERVOIRS HOLD THE WATER FOR A LONG TIME USUALLY  
22 ONCE THE GATES ARE SHUT. AND IT DOESN'T TAKE TOO LONG  
23 FOR THE ADDICKS RESERVOIR TO DRAIN INTO IT. YOU KNOW, A  
24 FEW DAYS. AND THE LOWER PART COMES IN LATER.  
25 BUT THERE IS SOME ADDITIONAL VOLUME. AND

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1 WE'RE LOOKING AT -- WE'RE STUDYING AND LOOKING AT TRYING  
2 TO INCREASE THAT VOLUME FOR NEW DEVELOPMENT IN THE  
3 WATERSHED. SO STAY TUNED TO THAT.  
4 MR. WINSTON: SO THE CONDITIONS THAT YOU  
5 YOU'RE SEEING ARE MOSTLY A RESULT OF AGING OF THE  
6 RESERVOIRS AND NOT RELATED TO, YOU KNOW, LARGE SCALE  
7 DEVELOPMENT UPSTREAM?  
8 MR. RICHARD LONG: THE ISSUES ARE THE  
9 INCREASE IN DEVELOPMENT DOWNSTREAM, OUR INABILITY TO  
10 RELEASE AS MUCH AS ORIGINALLY DESIGNED, THE INCREASED  
11 DEVELOPMENT UPSTREAM, WITH THE WATER COMING IN AT A FAST  
12 RATE AND THE LARGER VOLUME OF WATER. HARRIS COUNTY IS  
13 WORKING WITH US TO ADDRESS ALL OF THOSE ISSUES. BUT  
14 THEY ARE HAVING AN IMPACT ON THE STRUCTURE AS WELL AS  
15 THE AGE OF THE STRUCTURE ITSELF.  
16 SO IT'S A COMBINATION OF FACTS THAT'S GOING  
17 ON RIGHT HERE THAT ARE ALL COMING TOGETHER TO MAKE THIS  
18 EVENT THAT WE'RE GOING THROUGH RIGHT NOW AND THE WORK  
19 THAT WE DO WITH HARRIS COUNTY COME ABOUT.  
20 MR. WINSTON: JUST ANOTHER COMMENT. YOU  
21 MENTIONED THAT YOU DON'T ANTICIPATE HAVING TO GO UP TO  
22 3,000 IN THE NEAR FUTURE. BUT, YOU KNOW, IF ANY OF THE  
23 CLIMATE CHANGE PREDICTIONS YOU WILL SEE AFTER IT DO COME  
24 TO PASS, YOU KNOW, IT'S VERY LIKELY THAT YOU'RE GOING TO  
25 HAVE TO REALLY RELEASE A LOT MORE THAN 3,000.

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1 MR. RICHARD LONG: RIGHT NOW WE HAVE TO  
2 DEAL WITH THE CURRENT CONDITIONS THAT WE HAVE OUT THERE  
3 IN THE WORLD. SURE, THINGS COULD HAPPEN TOMORROW THAT  
4 WOULD MAKE US CHANGE EVERYTHING. WHEN WE TALK ABOUT  
5 WE'RE GOING TO STOP AT 2,000, THAT'S OUR PLAN TO STOP AT  
6 2,000. TRYING TO BET ON THE FUTURE IS DIFFICULT.  
7 MR. MURRAY: MIKE MURRAY. WHAT IS THE  
8 EXPECTANT LIFE SPAN OF THE NEW STRUCTURES?  
9 COL. PANNELL: TYPICALLY WE DESIGN FOR  
10 50 YEARS. IS THAT THE CASE, MR. VILLAGOMEZ?  
11 MR. VILLAGOMEZ: YEAH.  
12 COL. PANNELL: THAT'S A FAIR ASSESSMENT.  
13 THE CURRENT STRUCTURES HAVE BEEN IN OPERATION FOR ALMOST  
14 SEVEN YEARS. AS WE SAID DURING THE BRIEFING, IT IS OUR  
15 INTENT WITH THE NEW STRUCTURES GOING IN, WITH THE  
16 ADDITION OF OTHER FEATURES THAT THE EXISTING STRUCTURES  
17 DON'T HAVE, THAT THEY SHOULD PERFORM AS WELL AS THE  
18 EXISTING STRUCTURES, IF NOT BETTER.  
19 SO WHAT YOU SEE IS TYPICALLY WE'LL BUILD  
20 FOR 50 YEARS. BUT AS YOU SAW WITH THE CURRENT  
21 STRUCTURE, WE DID ALL THOSE IMPROVEMENTS OVER TIME. AND  
22 SO THAT'S WHAT ALLOWS THE PROJECT TO GO BEYOND THAT LIFE  
23 SPAN. SO IT'S JUST LIKE -- KIND OF LIKE OWNING A CAR.  
24 YOU START HAVING TO PUMP IN MORE MONEY TOWARDS THE END  
25 TO KEEP THAT CAR GOING A LITTLE BIT LONGER BEFORE YOU

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1 GET THE NEW CAR.  
2 MS. HARDWOOD: HI, MY NAME IS MARY ANN  
3 HARDWOOD AND I LIVE AT THE CORNER OF WEST LITTLE YORK  
4 AND ELDRIDGE BEHIND THE DAM. MY QUESTION IS: THERE'S A  
5 CREEK THAT RUNS BEHIND OUR NEIGHBORHOOD. I DON'T KNOW  
6 IF IT HAS AN OFFICIAL NAME, BUT WE WALK OUR DOGS ALONG  
7 THERE ALL THE TIME. IT GOES FROM WEST LITTLE YORK AND  
8 FEEDS DOWN RIGHT PARALLEL TO ELDRIDGE AND GOES ALONG  
9 BEHIND TWIN LAKES. AND THAT CREEK ABOUT FOUR OR  
10 FIVE YEARS AGO WAS DREDGED OUT, CLEANED FROM WEST LITTLE  
11 YORK DOWN TO ABOUT TWIN LAKES. THEN AT THAT POINT THE  
12 LAND NARROWS DOWN, KIND OF BOTTLENECKS AT THAT POINT.  
13 THERE WASN'T ANY FUTURE WORK DONE ON IT. I'M JUST  
14 WONDERING: ARE THERE PLANS TO DO ANY MORE TO THAT, TO  
15 CONTINUE THAT SO THAT THE FLOW IS A LITTLE BETTER?  
16 MR. FITZGERALD: I'M NOT FAMILIAR WITH THAT  
17 PARTICULAR CHANNEL THAT YOU DESCRIBED, BUT WE CAN TALK  
18 AFTERWARDS AND I CAN PUT YOU IN TOUCH WITH THE RIGHT  
19 PEOPLE TO FIND OUT.  
20 MS. HARDWOOD: DO YOU KNOW WHO DID THE WORK  
21 FOUR OR FIVE YEARS AGO?  
22 MR. FITZGERALD: IT COULD HAVE BEEN HARRIS  
23 COUNTY FLOOD CONTROL DISTRICT, IF THAT'S ONE OF OUR  
24 CHANNELS, BUT THERE ARE OTHER CHANNELS OUT THERE THAT  
25 ARE OWNED BY OTHERS. WE CAN TAKE A LOOK AFTERWARDS.

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1 MS. CHADWICK: I JUST WANT TO GO BACK  
2 AGAIN. MAYBE, RICHARD LONG, IF YOU COULD EXPLAIN AGAIN  
3 TO US A LITTLE BIT MORE ABOUT THE 3,000 CFS AND THE  
4 MEMORIAL DAY FLOOD, WHY -- I MEAN, I ASSUMED IT WAS  
5 NECESSARY TO RELEASE 3,000 CFS FOR THAT LONG BECAUSE OF  
6 SO MUCH WATER THAT IT WAS BUILT UP. WAS THERE ANY -- IF  
7 YOU COULD EXPLAIN WHY THERE WAS NO CHOICE TO RELEASE A  
8 LESSER AMOUNT OVER A LONGER PERIOD OF TIME OR SOMETHING  
9 LIKE THAT.  
10 MR. RICHARD LONG: WHEN WE'RE EMPTYING THE  
11 RESERVOIRS, OUR GOAL IS TO GET THEM AS EMPTY AS FAST AS  
12 WE CAN SO THEY ARE AVAILABLE FOR THE NEXT STORM EVENT.  
13 THE LONGER IT TAKES US TO EMPTY THOSE RESERVOIRS IS THE  
14 LONGER THOSE RESERVOIRS WILL NOT BE AT THEIR FULL  
15 CAPACITY. SO OUR GOAL IS TO GET THAT WATER DOWN, WITHIN  
16 REASON, AS FAST AS POSSIBLE. AND HOPEFULLY THAT WITHIN  
17 REASON DOESN'T CAUSE ANY MAJOR ISSUES DOWN THE STRETCH.  
18 SO, YEAH, IF YOU LOOK AT HINDSIGHT AND  
19 FORESIGHT, AND HARRIS COUNTY CAME TO US TODAY OR THE  
20 CITY OF HOUSTON SAID AND WE WERE RELEASING 6,000, LET'S  
21 GO DOWN TO 2,000, WE WOULD BE HARD-PRESSED TO GO DOWN TO  
22 2,000 ONCE WE SEE WHAT WE HAVE NOW.  
23 MR. FITZGERALD: WE WERE IN DISCUSSIONS IN  
24 OUR OFFICE, THE HARRIS COUNTY FLOOD CONTROL, DURING THAT  
25 TIME AFTER MEMORIAL DAY. AND THERE WAS A SIGNIFICANT

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1 AMOUNT OF WATER BEHIND ADDICKS AND BARKER. AND WE WERE  
2 CONCERNED BECAUSE IT COULD GET CLOSE TO SOME OF THE  
3 ROADWAYS THAT GO THROUGH ADDICKS AND BARKER RESERVOIR.  
4 THAT CAN'T BE THE ONLY DECISION MADE. THAT'S A FACTOR  
5 THAT THE CORPS USES.  
6 BUT ALSO, IF I REMEMBER RIGHT, RICHARD, AT  
7 THE TIME YOU SAID YOU ALL WERE CONCERNED ABOUT THE  
8 ELEVATION OF THE WATER BEHIND THE EXISTING OUTLETS AND  
9 YOU WERE UNDER SOME KIND OF CONCERN ABOUT THAT, WHICH  
10 MIGHT TRIGGER GOING A LITTLE BIT HIGHER TO KEEP THAT  
11 WATER LEVEL DOWN.  
12 BUT ONE THING I WOULD LIKE TO ADD IS THAT  
13 WAS PART OF THE INITIAL THINKING. WE WERE WITH HAPPY  
14 THAT 3,000 WAS DECIDED UPON UP AT THE DIVISION OFFICE.  
15 I KNOW THAT'S WHERE IT HAS TO BE MADE. WE WERE VERY  
16 GLAD THAT THEY STARTED BECAUSE TROPICAL STORM BILL WAS  
17 DOWN ON US TWO WEEKS LATER. AND THEY GOT 75 PERCENT OF  
18 THE VOLUME OUT IN THAT TEN DAYS. WE WERE VERY GLAD THAT  
19 WAS -- FORTUNATELY, BILL DIDN'T HIT US TOO HARD HERE,  
20 BUT WE WERE VERY GLAD THAT HAPPENED. BECAUSE THAT'S THE  
21 PURPOSE TO GET IT DOWN TO GET READY FOR THE NEXT STORM.  
22 BY GOLLY WE HAD A TROPICAL STORM BEARING DOWN ON US. WE  
23 WERE VERY GLAD THAT HAPPENED. IN HINDSIGHT THAT WAS A  
24 VERY GOOD DECISION.  
25 COL. PANNELL: WE HAVE A WATER CONTROL

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1 SECTION THAT MONITORS THAT CONSTANTLY. SO THE FIRST  
2 THING I DO WHEN I WAKE UP IN THE MORNING DURING  
3 SITUATIONS IS I LOOK AT -- I GET ON MY COMPUTER BEFORE I  
4 GO WORK OUT AND LOOK AT WHAT THE LEVEL IS AND WHAT OUR  
5 CURRENT RELEASE RATE IS AND THEN EXAMINE THE FUTURE  
6 WEATHER FORECAST. THAT'S EXACTLY RIGHT. WE WERE  
7 CONCERNED ABOUT THE IMPACT OF THE CONDITIONS THAT WERE  
8 DEVELOPING IN THE GULF AT THE TIME OF TROPICAL STORM  
9 BILL. THAT'S ONE OF THE ELEMENTS THAT CAUSED US TO GO  
10 UP TO OUR HIGHER HEADQUARTERS.  
11 (INCOHERENT): MY NAME IS AMY (INCOHERENT).  
12 AND I'M SORRY I WAS LATE GETTING HERE SO I DON'T KNOW IF  
13 THIS WAS COVERED AND ALSO I MAY BE CONFUSED ABOUT MY  
14 FACTS. BUT WHEN YOU TALK ABOUT FULL CAPACITY, FROM WHAT  
15 I'VE HEARD IS THAT YOU'RE NOT ABLE TO USE THE FULL  
16 CAPACITY OF THE DAM BECAUSE OF VOID OR FEAR OF COLLAPSE.  
17 IS THAT COMPLETELY ON THE BASE?  
18 MR. RICHARD LONG: THERE WAS SOME  
19 MISINFORMATION THAT WAS PUT OUT. MAYBE SOME  
20 MISUNDERSTANDING OCCURRED WHEN WE WERE DOING THE STUDY.  
21 AT NO TIME WERE WE AT A SITUATION WHERE WE WERE NOT ABLE  
22 TO USE THE FULL CAPACITY OF THE RESERVOIR. THERE WAS A  
23 TIME WHEN WE WERE CONCERNED ABOUT USING THAT FULL  
24 CAPACITY. BUT NEVER WOULD WE HAVE DEVIATED -- WOULD WE  
25 HAVE RELEASED MORE WATER THAN THE BAYOU COULD HAVE

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1 HANDLED DURING THAT TIME PERIOD, UNLESS WE WOULD HAVE  
2 SEEN AN EMERGENCY OCCUR WITH THE DAM. THAT EMERGENCY  
3 DID NOT OCCUR. SO WE HAD THE FULL CAPACITY THROUGHOUT  
4 THE STUDY PERIOD AND WE STILL THAT HAVE FULL CAPACITY,  
5 IF NEEDED.  
6 COL. PANNELL: ALL RIGHT. WE GOT ONE MORE  
7 QUESTION. NO. WE GOT A COUPLE MORE. KEEP THEM COMING.  
8 MS. CHADWICK: ARE WE GOING TO BE ABLE TO  
9 GET OUT OF HERE?  
10 COL. PANNELL: THE ANSWER IS YES. IF YOU  
11 HAVE ANY PROBLEMS, I'VE GOT A TRUCK AND YOU CAN JUMP IN  
12 THE BACK.  
13 MR. FITZGERALD: WE'RE ACTIVATED RIGHT NOW.  
14 I'VE BEEN WATCHING THE RADAR THE WHOLE TIME, AS WELL AS  
15 YOU ALL. BUT THERE IS MORE COMING THIS EVENING.  
16 MR. JOSEPH: IN THE INTEREST OF GETTING US  
17 ALL OUT OF HERE, I'M TIM JOSEPH. SOMETHING THAT  
18 FASCINATED ME ABOUT THE PROJECT -- I'VE LIVED HERE ALL  
19 MY LIFE -- IS THE TALK OF EARLY ON OF PLANS FOR CHANNELS  
20 OR A CHANNEL THAT WOULD REDIRECT SOME OF THIS WATER OFF  
21 OF BUFFALO BAYOU. I REALIZE THAT WAS NEVER DONE. I  
22 DON'T KNOW HISTORICALLY WHY. I'M JUST CURIOUS. HAS IT  
23 EVER EVEN BEEN TALKED ABOUT SINCE THAT DATE? I REALIZE  
24 IT WOULD BE GHASTLY EXPENSIVE AND PROBABLY IMPOSSIBLE.  
25 IT LOOKED TO ME LIKE THAT'S THE PATH OF --

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1 IT WOULD BE ROUGHLY WHERE THE TOLL ROAD IS NOW, HEADED  
2 TOWARDS KEMAH. BUT IT SEEMED LIKE THE MOST LOGICAL  
3 THING THAT POSSIBLY COULD HAVE BEEN IMPLEMENTED. THE  
4 ISSUE, YOU'RE NOT GOING TO EVER CHANNELIZE BUFFALO  
5 BAYOU. YOU'RE NOT EVER GOING TO INCREASE ITS CAPACITY.  
6 I UNDERSTAND WHY PEOPLE WANT NATURAL. HAS THAT EVER  
7 BEEN BROUGHT UP AGAIN, THOUGHT ABOUT.  
8 UNIDENTIFIED FEMALE SPEAKER: WAS THAT THE  
9 GRAND CANAL THAT YOU WERE TALKING ABOUT?  
10 COL. PANNELL: THE 1940 PLAN INCLUDED THE  
11 KIND OF THE NORTH AND SOUTH GRAND CANAL. BUT I GUESS  
12 WHAT I WOULD TELL YOU IS THE WAY WE EVALUATE OUR  
13 PROJECTS IS WE DO AN ECONOMIC ANALYSIS OF COST AND  
14 BENEFIT. AND SO I SUSPECT AT THAT TIME THIS WAS THE  
15 BEST OPTION AVAILABLE IN TERMS OF MAXIMIZING BENEFIT AND  
16 MINIMIZING THE COST. SO EVERY SINGLE ONE OF OUR  
17 PROJECTS GOES THROUGH A VERY HIGH LEVEL OF SCRUTINY WITH  
18 THAT ECONOMIC ANALYSIS. AND IF YOU WANT A PROJECT, IT'S  
19 GOT TO DEMONSTRATE THAT YOU HAVE A VERY HIGH BENEFIT TO  
20 COST RATIO.  
21 MR. JOSEPH: I REALIZE I'VE STUMPED THE MAN  
22 WITH A QUESTION HERE. BUT I'LL GET US OUT OF HERE WITH  
23 THAT. DO YOU THINK IN YOUR MIND JUST -- WOULD IT BE --  
24 AGAIN, I THINK I WAS TOLD 30 YEARS AGO THAT THE IDEA WAS  
25 TO CHANNELIZE BUFFALO BAYOU. THAT IT WAS GOING TO BE

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1 CONCRETE LIKE IT WAS CLOSE TO MY NEIGHBORHOOD, STONEY  
2 BROOK AREA. THERE WERE SOME AREAS THAT WERE CONCRETED,  
3 STOPPED, AND THEN THE FLOOD. SO KNOWING THAT'S NEVER  
4 GOING TO HAPPEN.  
5 COL. PANNELL: I WOULDN'T SAY NEVER. I  
6 MEAN --  
7 MR. JOSEPH: THAT'S INTERESTING.  
8 COL. PANNELL: THAT'S ONE THAT I WOULD  
9 DEFER TO MR. FITZGERALD, IF YOU WANTED TO ADDRESS THAT.  
10 MR. FITZGERALD: I'M NOT GOING TO LOOK IN  
11 THE FUTURE ABOUT BUFFALO BAYOU, WHAT IS GOING TO HAPPEN  
12 THERE. BUT IT'S INTERESTING YOU ASK THAT QUESTION  
13 BECAUSE WHEN TXDOT WAS IN THE PLANNING STAGE FOR  
14 WIDENING I-10, WHICH WAS PROBABLY 10 YEARS AGO OR MORE,  
15 ONE OF THE THINGS THAT WE GOT TOGETHER WITH THEM ON --  
16 I'M NOT SURE WHERE THE IDEA CAME FROM -- WAS, HEY, WE'RE  
17 THINKING ABOUT THAT 1940 PLAN. WE SAID, HEY, IT'S GOING  
18 TO MAKE SENSE TO TAKE A BIG CONDUIT UNDERGROUND UNDER  
19 I-10 DOWN WHILE THEY ARE REDOING THE FREEWAY.  
20 THAT WAS LOOKED AT IN A CURSORY MANNER,  
21 LOOKING AT THE COST AND ALL THAT. BUT FROM A PRACTICAL  
22 STANDPOINT AND SOME OF THE CHANNELS GOES ACROSS, IT WAS  
23 DECIDED NOT TO DO THAT BECAUSE IT WAS PRETTY MUCH  
24 ASTRONOMICAL. BUT THAT WAS LOOKED AT FOR A FEW MONTHS.  
25 THAT WAS AN OPPORTUNITY AT THAT TIME TO CONSIDER THAT

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1 RATHER THAN THE ROUTES SHOWN FROM 1940.  
2 MR. JOSEPH: IT JUST SEEMED TO ME THAT  
3 DURING THAT ORIGINAL ASSESSMENT PERIOD IN THE '40S,  
4 '50S, IF YOU WERE TALKING ABOUT ACQUIRING PROPERTY WHERE  
5 THE TOLLWAY IS NOW, IT MIGHT HAVE ALMOST BEEN FEASIBLE  
6 FROM A COST PERSPECTIVE. I COULD SEE IT NOW BEING  
7 RIDICULOUSLY EXPENSIVE. I CAN'T EVEN IMAGINE GOING DOWN  
8 TRYING TO --  
9 MR. FITZGERALD: THAT'S THE ONE REASON  
10 AROUND HARRIS COUNTY AND A LOT OF THE NATION IS THAT  
11 WE'RE DOING -- COMPARED TO EVEN 30 YEARS AGO, 20 YEARS  
12 AGO, WE'RE DOING A LOT LESS CHANNELIZATION AND LOT MORE  
13 STORMWATER DETENTION EVERYWHERE SO WE DON'T HAVE TO DO  
14 THE CHANNELIZATION.  
15 MR. LANGFORD: CAMERON LANGFORD. IS THIS  
16 SLIDE SHOW GOING TO BE AVAILABLE? BECAUSE I FEEL LIKE I  
17 MISSED BEFORE, YOU KNOW, WHEN I CAME LATE BECAUSE OF THE  
18 WEATHER AND STUFF AND THE TRAFFIC. IS THERE ANY WAY TO  
19 ACCESS THIS SLIDE SHOW ONLINE OR ANYTHING?  
20 COL. PANNELL: YEAH. CAN WE GO BACK ONE  
21 SLIDE. SO WE HAVE A WEBSITE THAT YOU CAN GO TO. I  
22 THINK THAT'S GOT BOTH THE STORY BOARD WEBSITE AND ALSO  
23 OUR DISTRICT WEBSITE. SO YOU GO TO ADDICKS AND BARKER.  
24 WE'LL MAKE SURE THAT THIS IS AVAILABLE. I THINK -- IS  
25 THE OLD ONE STILL ON THERE FROM THE LAST PUBLIC MEETING?

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1 MR. VILLAGOMEZ: IT HAD BEEN. I'M NOT SURE  
2 IF IT IS CURRENTLY STILL THERE. WE'LL MAKE SURE THAT  
3 THE NEW SLIDES FROM THIS MEETING ARE INCLUDED.  
4 COL. PANNELL: IT LOOKS LIKE WE'RE  
5 FINISHING UP HERE. YOU'RE WELCOME TO TALK TO THE PANEL  
6 MEMBERS AFTERWARD. WE ALSO HAVE THE 3-D MODEL IN THE  
7 BACK IF YOU WANT TO LOOK AT SOME OF THE ANGLES ON THE  
8 NEW PROJECT. AGAIN, THANK YOU ALL FOR YOUR ATTENDANCE  
9 TODAY AND COMING OUT TO LEARN ABOUT OUR PROJECT.  
10 (PROCEEDINGS CONCLUDED AT 7:58 P.M.)  
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1 COUNTY OF HARRIS)  
STATE OF TEXAS )

2

3

REPORTER'S CERTIFICATION

4

5 I, PHYLLIS LOY, CERTIFIED COURT REPORTER IN  
6 AND FOR THE STATE OF TEXAS, HEREBY CERTIFY THAT THIS  
7 TRANSCRIPT IS A TRUE RECORD OF THE TESTIMONY GIVEN.

8

9 I FURTHER CERTIFY THAT I AM NEITHER ATTORNEY  
10 NOR COUNSEL FOR, RELATED TO, NOR EMPLOYED BY ANY OF THE  
11 PARTIES TO THE ACTION IN WHICH THIS TESTIMONY WAS TAKEN.  
12 FURTHER, I AM NOT A RELATIVE OR EMPLOYEE OF ANY ATTORNEY  
13 OF RECORD IN THIS CASE, NOR DO I HAVE A FINANCIAL  
14 INTEREST IN THE ACTION.

15 SUBSCRIBED AND SWORN TO ON MARCH 21, 2016.

16

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18



19

PHYLLIS LOY  
CERTIFIED COURT REPORTER  
IN AND FOR THE STATE OF TEXAS

20

21 CERTIFICATION NO. 3301

EXPIRATION DATE: 12/31/16

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