

NOTICE OF MEETING OF THE

MAYOR AND CITY COUNCIL

To Be Held

NOVEMBER 10, 1982, at 12:30 P.M.

in the

BASEMENT CONFERENCE ROOM - CITY HALL

AGENDA

1. Floodwater Management

CERTIFICATION

I hereby certify that the above notice of meeting was posted on the bulletin board at the City Hall of the City of Abilene, Texas, on the 5th day of November, 1982, at 4:45 o'clock p.m.

Ruth Hodgin
CITY SECRETARY

BASMENT CONFERENCE ROOM - CITY HALL
ABILENE, TEXAS

The City Council of the City of Abilene, Texas, met in a Special Work Session, Wednesday, November 10, 1982, at 12:30 p.m., in the Basement Conference Room of City Hall with Mayor Elbert E. Hall present and presiding. Councilman Julian Bridges, Councilwoman Billye Proctor, Councilmen Juan C. Rodriguez, A. E. Fogle, Jr., L. D. Hilton and Councilwoman Kathy Webster were present. Also present were City Manager Ed Seegmiller, City Attorney, Harvey Cargill, Assistant City Secretary, Kelly Beard and Chairman of the Mayor's Floodwater Task Force, Dr. Thomas Kim.

Invocation by Councilman Fogle.

Dr. Kim said the purpose of the meeting was for the Task Force to present their recommendations to the Council and to answer any questions the Council may have. He introduced Mrs. Amber Cree, the Vice-Chairperson of the Technical Alternatives and Evaluations Committee, and Bob Whitehead, the Director of Public Works, to present the technical aspects of the Task Force's recommendations.

Mr. Whitehead said the Technical Alternatives and Evaluations Committee went through the process of reviewing the alternatives that were presented to the Council in the Phase I report of Freese and Nichols. He said that was used as the basic document which contained about three alternatives which were reviewed to present a recommendation to the Council. The Committee's recommendation to the Council includes the 100 year storm protection to be phased in in two phases: 1) implementing the 25 year storm protection and 2) implementing the 100 year storm protection, both of which to become effective by the year 2000. In the meantime, the City will embark upon a City/citizen cooperative effort to clean up the creeks in residential areas with those citizens living on the creeks doing their part in cooperation with the City in cleaning out their own channel to be completed in 1983-84.

The Committee's recommendations are:

1) Elm Creek - the recommendations include the use of retention and detention storage and conveyance. Detention and retention storage is recommended for Elm Creek. The detention pond locations are only conceptual now. He said the locations of the ponds could be placed wherever they would benefit the most depending upon the property owner's consent. It is even possible that one larger pond could eliminate the need for two small ponds if placed in the right place. A detention pond would let all the water out at intervals and would remain dry most of the time. A retention pond would retain water and could be used by the property owner as a stock tank or could even be used as a recreational tool. The largest detention pond will probably be placed in Lytle Creek and it will cover 900 acres. The 25 year Phase I of Elm Creek would consist of cleaning out and maintaining the 100 year flood plain south of Winters Freeway and south of the tracks, then have channel clean out north of the tracks with possible bridge replacement at N. 10th. Then North of Winters Freeway to I-20 would consist of maintaining the 25 year flood plain. For the 100 year Phase II of Elm Creek, a few more detention facilities would need to be placed, maintaining and cleaning of the Creek from Antilley Road to the tracks, then north of the tracks, the channel would have to be widened and lined with concrete. From I-20 north the channel would have a bottom width of 110 feet.

He said Little Elm Creek would not require any channel reconstruction or detention ponds. He said through the years, the Little Elm Creek has been maintained and the City should through administrative controls be able to curb the flow of water through the Creek.

Mr. Seaton Higginbotham, former City Council Member, asked if the City places detention or retention ponds upstream, will the Ft. Phantom Lake be deprived of the water that normally flows into it. He said the City already has water shortage problems, and these ponds may contribute to that problem.

Mr. Whitehead said if the City went through the process of trying to convert all of the ponds into retention ponds where water is retained, then there would be an affect on the Lake. However, the detention ponds would only slow the water down--eventually that water would reach Lake Ft. Phantom.

Mr. Seegmiller said that from previous studies, the City Staff is aware of how much water the water shed is capable of producing. He said it will be a matter of looking at the trade off between the cost of building the ponds and the benefit that it provides for Ablene.

Where Little Elm Creek and Elm Creek come together, Mr. Whitehead said that City administrative controls will be necessary to allow the developers the choice of deeding the right-of-way, improving the channel, or making general improvements to decrease the flooding.

2) Catclaw Creek - The conveyance concept will be used for Catclaw. Water will be run through town as quickly as possible through some type of channel to get rid of it. The 25 year Phase I of Catclaw Creeks calls for the undeveloped portion of the Creek south of the Winters Freeway to be under administrative controls so as it develops, it can be improved or the City can acquire the flood plain. North of Winters Freeway to S. 20th, already has an improved channel. North of S. 20th, the channel would be improved to have a bottom width of about 30 feet. Bridges (12) would probably have to be replaced or enlarged. The largest amount to improve Catclaw Creek comes from the replacement or enlargement of the 12 bridges. They will be replaced on a 100 year design. The 100 year Phase II consists of the further improvement of the channel under the conveyance system to a 45 feet bottom width. From I-20 to S. 20th, the section would have to be cleaned out and a few more bridges would need to be replaced.

3) Cedar, Buttonwillow and Lytle Creeks - Buttonwillow starts at about the Municipal Golf Course; Lytle starts just south of Hwy 80 and eventually joins Cedar Creek. Cedar Creek will have the combination of the storage and conveyance concepts. The 25 year Phase I of Cedar Creek will be under administrative control south of Hwy 80. North of Hwy 80 or the railroad tracks, the channel would be improved to a bottom width of 30 to 40 feet. The channel around Gooch Packing Plant is already about that size, so a lot of improvement there will not be necessary. North of College Drive through Will Hair Park on north will be the major area of concern. The 100 year Phase II of Cedar Creek will require the north side to have improvements up to 50 feet bottom width and three bridges will need to be replaced. (N. 10th, College & Ambler bridges.) A detention pond placed in the Goodlow area as an alternative to having to widen out the channel or having more detention ponds placed in the area was reviewed, but not recommended to the Council.

Mayor Hall asked how the improvements along Cedar Creek would influence Lake Kirby. He understood that Lake Kirby may be used as a retention reservoir, which would require that the level of the Lake may be lowered between rains. Mr. Whitehead said since Cedar Creek will be a combination of conveyance and storage, two small detention facilities will be placed upstream or south of Lake Kirby. He said Lake Kirby will be modified to detain more water than it is presently designed to do. Modification of Lake Kirby is to insert a tube through the dam at spillway elevation (1776 feet). This would allow the water to be carried out in a controlled manner. After the water begins to recede, the tube will remain active until the level of 1776 feet. The 10 feet between the 1786 feet of the actual spillway elevation and the 1776 feet of the tube spillway elevation will provide the detention affect of Lake Kirby.

Councilman Hilton asked what the volume of Lake Kirby is presently and what the volume would be if the tube was inserted. Mr. Whitehead introduced Tony Reid of Freese and Nichols. Mr. Reid said the Lake was built in 1928 and the Conservation Service did a survey on it in 1941 to establish how much sediment had been accumulated in the Lake between 1928 and 1941. Using that rate of accumulation, he tried to estimate the current capacity of the Lake. The storage capacity at the current spillway level is about 6,021 acre feet storage. If the Lake is reduced by 10 feet, the capacity would be reduced to 1,238 acre feet of storage. The total reduction would be approximately 4,800 acre feet of storage. The amount being sold out of the Lake for use by

golf courses, etc., is about 800 acre feet per year. If the detention run off was limited to 5 feet below spillway elevation, it would have less influence on the amount of water Lake Kirby would retain, but it would also influence the channel capacity downstream. Another alternative could be to build a larger detention facility upstream but at a higher cost.

Mayor Hall asked that if when the level of a lake is lowered, is the quality of the water maintained. Mr. Reid said that as the Lake is drawn down and evaporation takes place, the chemicals that are in the water remain there and the quality will deteriorate. Without a chemical analysis of the water in Lake Kirby, he could not give the Council an accurate report of the quality of the water or how it would deteriorate at lower levels. He said that if the Lake as it exists today was pulled completely down, there would be only 525 acre feet per year yield in the lake. Chemical quality is deteriorated considerably when a lake is that low. He recommends that at least one year's usage be left in the Lake to maintain better chemical quality. Under those conditions, only 295 acre feet per year can be realized. During a drought period, only the 525 acre feet or the 295 acre feet should be used. If the City uses the tube inserted at 1776 feet elevation, there would be only 300 acre feet per year and 143 acre feet with one year's reserve. In a drought year, the 800 acre feet per year that is now being used for irrigation of golf courses would not be available in either case.

Mr. Higginbotham asked what the difference was between Alternative II and the use of Kirby as a detention facility. Mr. Whitehead said that without the modification to Lake Kirby, the other alternative is for a detention facility located just south of FM 707 along with two other facilities in the area. Lytle Lake facility will cost about \$4 million. Cedar Creek improvements alone will cost about \$5.6 million.

Councilwoman Webster expressed concern for the City's obligation to furnish water to the golf courses. She said if the City is able to save \$3.5 million by not building a detention pond south of Lake Kirby, but ruins Lake Kirby by using it as a detention pond, then the City has not saved anything. Mr. Seegmiller said there have been times in the past when Lake Kirby was so low that its water could not be used. The Mayor's suggestion of just lowering it by 5 feet or even 2 or 3 feet could be implemented with more improvements further upstream.

Mr. Raid said the idea of the Goodlow detention facility was to reduce the size of the creek channels north of the railroad. In the Freese and Nichols study, the reduction in flow was only 100 CFS, which is not an significant amount. The detention facility would cost about \$1.8 million and Freese and Nichols did not think it was cost effective to build the facility from what the City would benefit from it.

Councilman Hilton pointed out that there would be very little storage capacity in the detention facilities in the Goodlow area. But, it would provide a recreational area when it was dry. Mr. Whitehead said the 100 CFS does not represent any reduction in the channel size. Unless the City went into the area and completed some major excavation (not included in the \$1.8 million) there would not be a large enough storage to justify that \$1.8 million. It was an acceptable site for a detention facility, however, not enough water could be stored there to make it effective. Councilman Hilton said it looked like the water during a flood could be backed all the way up to Cal Young Park and let it spread out. Mr. Seegmiller asked what the difference was between storing the water in Cal Young Park and storing it further out in one of the detention facilities. Mr. Whitehead said not much water could be stored in the area without major excavation work. The two detention facilities planned will require dams built around them and minor excavation work. The cost of the land has also been factored into the cost of the detention facilities. Surface area and depth are two major factors in determining where a detention facility should be located.

Councilman Rodriguez asked if after the detention facilities were in place, channels cleaned out and general improvements have been made, will the City's creeks handle the flow of a 100 year flood.

Mr. Whitehead said the improved channels would provide enough capacity to accommodate a 100 year flood.

Councilman Rodriguez asked if some of the detention facilities south of Abilene could be eliminated so that the Goodlow area could be excavated enough to provide storage for a large amount of water. and its affect on the possible relocation of Stevenson Park area. Mr. Whitehead said the project that is being proposed for the Cedar area does not recommend the relocation of Stevenson Park. One of the alternatives that the Committee did look at was allowing the whole area to flood. The cost would be about \$14 million to do that, but the Committee recommended that detention facilities be built upstream and channel improvements be implemented at the cost of about \$9.6 million. With those improvements, Stevenson Park would not have to be relocated. Mr. Seegmiller said the City would like to build the detention facilities without other recreational uses in mind. When dry, the facilities will provide the area with valuable recreational uses-- when creeks over flow, they become valuable flood controls.

Mayor Hall said as far as the Floodwater Management Program is concerned, building a dam in the Goodlow area would not permit replacing any other dam. And would not give the management of enough water to change the design necessary down stream. It won't help the management of the flood water to come up with other uses for a detention facility. Councilman Hilton said the City might save a \$500,000 to modify Lake Kirby and retain enough water elsewhere so Lake Kirby can remain as it is. Mr. Whitehead said probably the City could not retain enough water in Goodlow to prevent having to use Lake Kirby.

Councilman Fogle suggested that the City not retain any water and prevent it from going to Lake Ft. Phantom. He thought that the City may have to develop some sort of water supply if Ft. Phantom is deprived of the free flow it normally receives.

To continue with the recommendations for Buttonwillow Creek, Mr. Whitehead said administrative controls would be used to curb flooding. The new portion of the community developing in that area has been designed for the 100 year flood. If that 100 year floodway can be maintained, then the City won't have to require improvements to Buttonwillow Creek.

Lytle Creek will require a detention facility on the Creek. It will probably be the largest facility (900 square acres). During the Columbus Day Flood, the head waters collected all the way to the hill south of Potosi. The 100 year flood waters actually came through on Lytle Creek. The facility will cost about \$4 million. The Cedar Creek system will consist of three detention facilities on Cedar Creek, one facility on Lytle Creek and channel improvements on Cedar Creek.

4) Rainy Creek, Buck Creek and Indian Creek are three undeveloped creek systems now. The recommendations concerning these Creeks are for administrative controls.

Mrs. Jackie Grimm suggested the City try to reverse the flow of the creeks. Mr. Whitehead said the Corp of Engineers in the mid 1960's studied the concept of diverting Elm & Buttonwillow to Cedar Creek and creating a large channel on Cedar to go around the City. That concept is not feasible now because the City has grown so much south. State Law and water rights would probably step in if the City tried to reverse the flow. Also Lake Ft. Phantom would be of no use to the City if it was empty and the economics of trying to do that would be staggering.

Mr. Higginbotham asked if inflation had been figured into the cost of the recommendations. Mr. Whitehead said that inflation had not been figured into it, however, 10 to 20 percent had been added for engineering, etc., so there is a small percentage built into it.

Councilman Rodriguez asked how the City will acquire the property for the detention facilities. Mr. Whitehead said the figures used were based on an average cost per acre for comparable land for

the purchase. It will depend on how the City would like to acquire the property--by purchase, by purchasing an easement to create a detention facility then let the farmer or rancher use it for a stock tank, etc. The actual cost of purchasing land has been figured into the total amount of the recommendations, therefore, there could be a savings of money designating to purchase land.

Mr. Roy McDaniel, Assistant City Manager of Fiscal Resources, presented the recommendations of the Task Force Finance Committee. The preliminary investigations of other funding sources proved to be pessimistic. If the Council should go with the recommendation of the Stevenson Park Relocation, then there would be some Community Development Block Grants available. The Soil Conservation District may help with building the detention facilities in the outlying areas. Rather than using City funds, the Committee thought about creating flood control districts, however, that does not seem to be very feasible yet. He said the rating agencies now look at the per capita direct debt. That means how much each citizen of the City owe for City debt. In Abilene's case, that is \$164.42. The national median for cities the size of Abilene is \$307. Also they look at the per capita over lapping debt. That involves all of the taxing entities that a citizen of Abilene might be responsible for--the County, the school districts, etc. The per capital over lapping debt is \$382.60 and the national median is \$459.

The Committee found that the City could issue a minimum of \$64,000,000 worth of bonds over a 16 year period with a 16 year payback of equal principal. That is figured at a 10 percent interest rate. The present requirements for general purpose bonds through 1998, which is when they pay off, results in \$4 million per year and the principal and interest requirements that would be due on that. Under that method after 16 years, the City would be recapturing as much debt as it would be selling. The City could sell at least \$4 million from now on. He said the Finance Committee showed the other Committees that they could provide as much money as they need if they are given enough time. For example, over 25 years, the City could borrow \$100,000,000; 50 years, \$200,000,000, etc. The City would have to keep up its good credit rating for this system to work, however.

In 1998, the City will reach a maximum tax rate required of .30 1/2 cents by using the \$64,000,000. That compares to the present rate for debt of .11¢. In 1998, the City will be selling \$4 million and recovering \$4 million, so assuming the tax base grows, the tax rate could begin to decrease. If the national median of the direct debt is \$307 now and in 1996 the City reaches \$294.78, there will be some safety for the City. The over lapping debt will maximize in the second year.

After being asked to finance the recommendations that the other Committees came up with, the Finance Committee came up with a plan to finance the 25 year phase by the year 1993 with \$28 million for flood control and \$16 million for whatever other purposes the City might need over that time frame.

Mr. Oliver Howard, former Mayor of the City, asked how the Committee arrived at the estimated interest 10 years from now. Mr. McDaniel said the Committee used 10 percent as a solid interest rate.

A part of the Technical Alternatives and Evaluation Committee's recommendation stated that the first phase be implemented and then the second phase be completed by the year 2000. The City will be facing massive water financing sometime in the 1990's, therefore, the Committee did not complete extensive study on the second phase. The financing of the two complete phases may not be possible by the year 2000.

The City could issue \$44 million worth of bonds over the next 11 years. How that could happen has to follow a \$4 million per year package. It could be \$5 one year and \$3 the next, etc. The \$44 million has to include all general purpose bond sales--streets, parks, etc. The water and sewer revenue areas have been left out to try to save that for the future water supply.

Mr. McDaniel said a lot of Freese and Nichols' figures are broken down into many categories--land purchases, creek cleaning, etc.. Some of those categories have inflation factors built into them. The whole plan has certain inflation factors built into it because of a duplication between the operating budget and the plan itself. A part of the plan calls for creek cleaning in certain years in certain areas. The City has been doing a certain amount of that out of the operating budget already. Roughly, \$500,000 a year has been funded from the operating budget. The total plan comes to about \$28 million. The Staff has incorporated several conservative numbers into the growth factors. An inflation factor has been built into the plan, however, it is hard to pinpoint an exact percentage because it is in various rates at various places.

Mr. Higginbotham asked if the City could use up \$4 million a year, or does the City need \$4 million a year. Mr. Whitehead said some of the detention facilities may take the whole \$4 million for one facility and be completed in one year. He said many things could be done to improve each of the creeks--right-of-way purchase, channel clean out, construction of detention facilities, etc. The Staff anticipates it taking a year to purchase the right-of-way for the detention facilities, so after the initial right-of-way purchases, construction and clean up could begin.

Mr. McDaniel said that there is always a start up period that is slow. Nothing can begin until the City has money on hand. After a year or two, the Staff can implement the recommendations quickly.

Dr. Kim pointed out that the \$4 million is the total bond issue or \$28 million over 11 years. The average would be about \$2.5 million a year. Regardless of the time frame, the City should be able to use the money responsibly.

Mr. Howard mentioned that when he was the Mayor, the City had several projects going at one time, and could use only a certain amount of money at one time. Also, he said they had problems with contractors, legalities, etc., that slowed progress down.

Mr. Higginbotham said besides the question of whether the City can implement the money each year, he felt that the City should stretch the plan out to the year 2010 to give the tax payers a little relief of the tax burden.

Councilwoman Webster said what might happen to the whole project, is if the Council accepts the whole concept, the Council will have to re-evaluate it each year at Budget time. She said that goes for the bond sales too. She did not think the citizens would vote for a \$28 million bond sale to take place over 11 years.

Councilman Fogle asked if the total of \$44 million in bond sales took place, and \$28 million of it was for Flood control, would the \$16 million left over take care of the City's other needs. Mr. McDaniel said there is no way of knowing if \$16 million will be enough. One year, the City may need a few hundred thousand, and the next it could need \$6 million. The City could easily spend \$2 million a year on streets. In the period of 11 years, the City may need \$20 million instead of \$16 million, and at that time, the City may be able to handle \$20 million. However, the City can't sell the whole \$44 million and then arbitrage it for \$16 million. The City must have a planned use of the money when the bonds are sold. The City will probably have a problem in trying to maximize what it can borrow and how fast it can be paid off. The City could sell \$4 million at a time, but the issuance fees and the ratings fees would cost the City a lot of money.

Councilwoman Webster suggested that the City include the Flood-water Management Program when it takes a look at its 5 years Capital Improvements Program. Then at the end of each five years, the Staff could determine what funds are available for what project. Mr. McDaniel said the City might have a problem in that the voters might not pass a bond sale unless they see results. He reiterated that a detention facility may not be built for two or three years because of hold ups on land purchases, etc.

Mayor Hall introduced Mrs. Claudine Wooldridge, Vice-Chairperson of the Policies and Ordinance Committee. He said the Committee's recommendations, combined into ordinance form, was the first action the Council could take without an election.

Mrs. Wooldridge said the Committee was charged with the task of compiling an ordinance based on the assumption that any future development in Abilene would not increase run off. The program the Committee developed proposed a way of reducing existing flooding and preventing future flooding. The components that made up the Task force are: 1) Stream Management Plan, 2) Drainage Policies, 3) Drainage Standards, 4) Ordinances to Implement the Program, and 5) Funding and Public Information Committees. She said no committee could work without the others. For instance, no stream improvement plan could be proposed without the policies and ordinances in place that would insure that these improvements once they had been made would continue adequately. Nor did the Committee develop policies that were inconsistent with the level of protection being proposed in the Stream Management Plan. The Committee compiled some policies and an ordinance that regardless if the citizens vote against the bond sale, the policies and the ordinance will benefit the citizens in years to come.

Mrs. Wooldridge said the Committee recommended 14 broad policy statements that will when implemented achieve the goals of reducing existing flooding and preventing additional flooding in the future. The policies are all interrelated and have been carefully coordinated with the concepts recommended by the Technical Alternatives and Evaluations Committee. She went over the policies with the Council as they are listed below:

- 1) General - the floodwater management program shall be applied within the City limits and in the City's ETJ and that there will be an ordinance, a stream management plan, and a drainage standard used to accomplish the program's goals. It also says that developments already underway are not expected to retroactively comply with the program.
- 2) Stream Management Plan - the City shall rely on an adopted stream management plan to achieve the program's goals. The plan has already been accepted by the Task Force. It would be used to guide the City in determining where, when, and what improvements are to be made. Criteria is set out deviating from the plan.
- 3) On Site Run Off - the stream management plan is based upon the assumption that increased run off from future development will be limited to no more than occurs under natural conditions. Without this policy the stream management plan, once implemented, would not handle all the additional water created by future developments.
- 4) Regional Run Off Control - there will be some future development that cannot contain water on site and provides for use of regional detention facilities as an option. This policy goes on to state that the cost for such facilities will be born by those benefiting from them in proportion to their benefits. This is not to be confused with the detention facilities as has been recommended by the Technical Alternatives and Evaluations.
- 5) Erosion and Sediment Controls - to control erosion and sediment after a development has occurred in on site or regional detention facilities.
- 6) Major Drainage System - requires that all major improvements to be constructed as part of the stream management plan or as future development occurs will be dedicated to the City. The dedication can be in the form of right-of-way or easements and includes areas that are left in natural states but will convey the designed storm.
- 7) Minor Drainage System - provide for nuisance type flooding and usually consist of streets, storm drain inlets, storm drain pipes, and roadside ditch culverts. It shall provide conveyance for the 5 year frequency flood.

8) Bridges - on streams not proposed for structural improvements in accordance with the stream management plan shall be improved to convey the 100 year frequency flow below the top of roadway to allow the unobstructed passage of vehicular traffic.

9) Floodway Development - prohibits development in the floodway with the few exceptions of uses that will not increase flooding or uses that would not be damaged by flooding.

10) Hydrological and Hydraulic Computations - requires computation in design (drainage plans) to be submitted to the City Engineer for approval. It is intended to insure that improvements and developments meet the intent of the overall program.

11) Maintenance - major and minor drainage systems shall be maintained by the City of Abilene, but systems retained at the owner's option shall be the responsibility of the owner.

12) Implementation - major drainage system improvements shall be financed by the City of Abilene, but system improvements proposed for completion by the developer and in accordance with the stream management plan may be jointly financed by the owner and the City. Major system improvements proposed by a developer that are approved by the City but are contrary to the stream management plan shall be financed by the developer. Minor drainage system improvements shall be financed by the developer unless unusual conditions require the City participation to provide drainage system continuity.

13) Reclamation - these measures may at some times be necessary in order to accomplish some part of the program and in some instances provide the opportunity to realize some savings in the cost of improvements. In order to implement the floodwater program, the City may have to purchase land or condemn it.

14) Permits - some type of permit is necessary to insure that improvements are made according to the flood plain or that run off is adequately controlled or that construction will take place as it has been proposed to the Council.

Mrs. Wooldridge mentioned that one of the recommendations that the Council received was to create a moratorium. The Committee was concerned that a lot of platting might occur before any policies or any ordinances could be adopted by the Council. The Committee thought by putting a temporary moratorium on it, it would prevent a lot of paper developments. In the development of the proposed ordinance, the Committee came up with a grandfather clause which eliminates any need for a moratorium. Another recommendation of the Committee was concerning drainage standards. The Committee realized that final proposed drainage standards could not be formulated in the time frame between August and November. Until the final policy statements and recommendations are made, and until the Council adopts them, the Committee asks that the Council not allow less protection than is called for by the policy statements submitted by the Committee, or that the Council not impose any greater restrictions on development than is called for by the policy statements, and to provide for the maximum number of designed options possible when asked for permits. The Committee felt that by including the recommendation only the minimum standards necessary to accomplish the floodwater management program's goals will be adopted, even then these standards will be flexible as possible. The Committee is concerned that only those conditions essential to the success of the program be imposed and that all flexibility be worked into everything that the Committee does.

She said once a stream management plan is formulated and once a policy framework for implementing that plan most effectively was developed, and once guidelines for drainage standards were established, then the Committee was faced with the job of developing an ordinance that would insure that all the various components of the floodwater program would be translated into action. The major improvements recommended by the stream management plan will depend on funding, but many of the things that will make the program work are things that will occur as the community grows.

Mrs. Wooldridge said the ordinance will never exceed the conditions called for in the recommended policy framework. It does address growth responsibility and once in effect, it will equitably distribute the responsibility for minimizing future flooding in Abilene.

Mrs. Wooldridge went over the floodwater management ordinance with the Council step by step. She said it is a combination of two earlier ordinances and many of the City's present ordinances. It requires that the development anywhere in the City or in the ETJ comply with the stream management plan and the drainage standards. It requires that future development of tracts greater than a certain size limit the discharge of run off from the site to a level not to exceed that which would occur under natural conditions. It requires that a developer submit drainage plans that meet those stipulations before his development can be approved. It requires that a development permit be secured anywhere in the City or the ETJ for excavation, re-grading, filling, or other work begins to insure that work will meet those standards. The ordinance minimizes the likelihood that anything will be constructed in the floodway that could suffer serious damage from flooding or that could cause the floodway itself to be widened or deepened.

Mrs. Wooldridge explained that FEMA (Federal Emergency Management Association) requirements allows the City to have flood insurance.

Stormwater Management Ordinance:

1) Definitions - required by FEMA. Earth Change, Drainage Standards, and Sedimentation Facilities sections are new. The Sedimentation Facilities includes but not limited to land terraces, hay bales, and vegetation ground covers used to reduce transport of suspended solids. Mrs. Wooldridge said that the FEMA regulations or old regulations have not been changed. The new sections are the sections that the Committee has developed.

2) Purpose - 2.1 through 2.7 are all old and FEMA requirements. 2.8 and 2.9 are new sections and relate to policies 1A, 1B, 2, 3, 5 & 14.

3) Methods of Reducing Flood Losses - 3.1 is a new section and relates to policy 3. Section 3.2 is FEMA required. Section 3.3 is FEMA required and relates to policy 8. Section 3.4 is FEMA required and relates to policy 8. Section 3.5 is FEMA required and relates to policies 3 & 14. Section 3.6 is FEMA required and relates to policy 8.

4) General Provisions - Section 4.1 is FEMA required and policy 1 and has two new words in it: extraterritorial jurisdiction. Sections 4.2 and 4.3 are FEMA required and relates to policy 14. Section 4.4 is an old section. Section 4.4.1 is the grandfather clause and relates to policy 1B. Sections 4.5, 4.6 and 4.7 are old sections filled with legal terms.

5) Drainage Standards - is new and relates to policy 1B. This section will be approved by resolution which will provide easy change in technology.

6) Drainage Plans and Permit Requirements - both sections are new. Section 6.1 relates to policies 3, 5, 10, & 14. Section 6.2 is related to policies 10 & 14.

7) Conditions for Approval of Subdivision Plats and Issuance of Development Permits - 7.1 is old. The Committee added 7.1.1 through 7.2 to give the developers some options. Section 7.1.3 is also related to policy 4.

8) Drainage Plan Contents - 8.1 is new and relates to policies 10 & 14. Section 8.2 is old but relates to policies 10 & 14. Section 8.3 is old and is required by FEMA.

9) Application for Development Permits - Sections 9.1 through 9.2.6 are required by FEMA and relate to policy 14. Section 9.3 is new. Councilwoman Webster asked why the City Engineer must approve site plans in Section 9.1. Mrs. Wooldridge said the City Engineer establishes the form and content of the application. Mr. Lee Roy George, Director of Planning and Community Development, said the

Committee once thought about compiling a free standing ordinance. However, in order to extend requirements out to the City's ETJ, the Subdivision Regulations had to be included. The Zoning Administrator can only take an application and insure that the correct information is there. The City Engineer has to look at the engineering statistics.

10) Development Permit Policies and Standards - Section 10.1 is new. Sections 10.1.1 and 10.1.2 are new and are related to policy 1B. Section 10.1.3 is new and relates to policy 3. Sections 10.1.4 and 10.1.5 are new and relate to policy 5. Sections 10.1.6 through 10.2.2 are all new. Section 10.2.3 is FEMA required.

11) Special Provisions for Flood Hazard Reduction in Areas of Special Flood Hazard - Sections 11.1.1 through 11.2.1 are FEMA required. Sections 11.2.2 and 11.2.3 are old. Section 11.2.4 is new and relates to policy 9. Concerning 11.2.1, it is the City's intent the policy reflect only minimum requirements & if flood proofing of basements is possible, then the City should allow it. Section 11.3.1 is FEMA required and 11.3.2 is FEMA required and old. Sections 11.3.3 and 11.3.4 are old.

12) Exemptions - Sections 12.1 through 12.1.5 is new. Section 12.1.3 is new and relates to policy 3. Mr. George said the policies are fairly broad and general and are not intended to be specific. Councilman Hilton said in Section 10.1.2 no earth change shall be permitted. The section only says that earth change is exempt from permits not from policies. Mrs. Wooldridge said in Section 12, only bona fide agricultural and farming operations which constitute the principal use of any lot or tract of ground in the City of Abilene and which meets the requirements of the Zoning Code and the City of Abilene will be exempt. Mr. Tony Neitzler, Assistant Director of Planning and Community Development, said the Committee intends to exempt persons trying to re-terrace farm land or landscape yards. He said 12.1.3 which has to do with 2 and three acres is specifically outlined in the policies. Also the Committee had to find a way to permit emergency repair and installation of utilities without requesting a permit each time.

13) Detention and Drainage Facilities: Requirements and Standards for Detention and Drainage Facilities - Section 13.1 relates to policy 4 and Section 13.2 relates to policy 6 & 12B and are both new.

14) Drainageway Dedication - Sections 14.1 through 14.4 are related to policies 6 & 7 and are both new. Detention facilities must conform to the City's drainage standards and they will be dedicated to the City unless the developer wants to maintain it. The developer may have golf courses, decorative lakes, etc., that might cause him to want to maintain the detention facility himself. Councilman Hilton suggested that the section give the option to the City instead of the developer. The City may not want to go into a small area and have to maintain it because the developer does not want to maintain it either. Mr. George said the Council has to approve of the detention facility before it can be built. In that way, the City will be able to discourage unwanted responsibility of maintaining lakes or golf courses.

15) Standards for Subdivision Proposals - Sections 15.1 through 15.5 are new and relate to policy 1.

16) Deviation and Appeals Procedures - Section 16.1.1 is new and relates to policies 2 & 3. Sections 16.1.2 through 16.1.4 are new.

17) Administration of Drainage Plans - Sections 17.1 through 17.4 are new.

18) General Administration - Sections 18.1 through 18.4 are old and required by FEMA. Section 18.5 is old but not required by FEMA. Section 18.6 is new. Sections 18.7 through 18.7.2 are old. Councilwoman Webster asked why in Section 18.7.1 does the Zoning Board of Adjustment handle ordinance variance procedures instead of the Technical Review Committee. Mr. George defined deviation, exception and variance. He said the only the Council can approve a deviation from a plan. Variances are set up by State Law and when a provision is put into an ordinance that allows for a variance procedure, it must be heard according to State Law by the Board of Adjustment. A developer can only ask for a variance from only what is in the ordinance from the Board of Adjustment. A variation from a height elevation on buildings is in the Zoning Ordinance and must be appealed to the Board of Adjustment.

Mr. Neitzler said when the Council adopts the stream management plan, basically the developers are being told is that they will have to design where it will help the City to come up with a bottom width channel of 30 feet. If the developer wants to do something different such as a 25 feet channel and a little wider on top, it must be approved by the Council. That is called a deviation. The Flood Hazard Technical Advisory Committee can make a recommendation to the Council on a deviation or it can come directly to the Council from the developer. A developer, regardless if he is in a flood area or not, has got to have a development permit that basically says that he has engineered his development so that there will be no increase in run off leaving his site above what occurred under natural conditions. If there is a dispute over the developer's engineering calculations, he has the right of appeal to the Flood Hazard Technical Advisory Committee. He also has the right of further appeal if not satisfied to the Council. Variances deal only with building floor elevations within the regulator flood plain. The Board of Adjustment is responsible for hearing variances concerning the Zoning Ordinance.

Councilwoman Webster asked whether the water flow from a development could cause problems if the developer was granted a deviation or a variance. Mr. George said most of the time on variances, private land owners on a lot by lot basis, request them, not developers. If for some reason the property owner cannot build his structure at a certain elevation, he would appear before the Board of Adjustment for a ruling.

Mr. Neitzler said in Section 18.7.3, variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places, without regard to the procedures set forth in the remainder of the section. Variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level.

Mr. George said in Section 11.2.1, residential structures shall have the lowest floor including basements. One foot is added to the base flood elevation and is an addition both to residential and non-residential construction.

19) Enforcement and Penalties - Sections 19.1 through 19.4 is new.

Councilman Bridges asked if most commercial developments would be exempt from policy 3, on-site runoff control. Mrs. Wooldridge said, for instance, if the Mall of Abilene was being built today, it would have to provide some way to take care of the great amount of runoff it causes. Councilman Bridges said most commercial developments were smaller than two acres and if all those developments were put together, the City might have to deal with another Mall of Abilene. Mr. George said the Committee discussed the possibility of having some minimal acreage that would not have to go through the expense and rigors of having to get a runoff control development permit. The Committee came up with the 2 and 4 acre limitations. He said the flood elevations already have a 1 foot level factor figured into them. Mr. Matt Schwantz, Freese and Nichols, said the use of the land available had been the small commercial businesses. Now, however, the land is becoming more and more scarce and commercial developments of 15 acres or more are the trend. Mr. George said the in-fill may have already had flooding figured into the elevation calculations. Mrs. Wooldridge said the Committee wanted the persons with one lot or a few small lots to be able to build on them without having to go through the process of getting permits, etc. Mr. George said according to the Zoning Ordinance, the City has several minimum site sizes for various types of buildings or businesses anyway.

Mrs. Wooldridge said the Committee worked very hard on compiling the information for the policies and the ordinance and she hoped that the Council would study them and adopt them for the benefit of the citizens of Abilene.

Mr. Tony Reid, Freese and Nichols, wanted to think that he and Matt Schwanitz and Jerry Fleming had compiled information valuable to the City Staff that would enable them to control the flooding in the City and its ETJ. He said the concepts that Freese and Nichols came up with have been used in the northeast for a few years already and have greatly helped those areas. He, Matt and Jerry felt privileged that they were allowed to work with such a capable City Staff, the Task Force and Dr. Kim. Mr. Jerry Fleming complimented the Task Force members for their hard work and dedication to come up with a plan as important as the floodwater management plan. Mr. Matt Schwanitz said even though there were a few heated arguments while developing the policies and ordinance, there was a lot of interaction between the developers and the Committee members. He said interaction of that nature is not common in other cities, so Abilene should be proud of the Task Force and its developers.

Mr. Higginbotham said that when he was a member of the City Council, they all knew that something needed to be done to combat the flooding problem. He said they all knew that it would be expensive and a long drawn-out project. Now that the Council has proposed a plan to combat flooding, he thinks that inflation, taxes, implementation costs and Staff costs should be closely monitored and not get out of hand. He suggested the City look at drawing the project out to the year 2010 instead of hurrying to have it finished by the year 2000.

Councilman Hilton wanted to be sure and have enough public hearings for the Council to have the opportunity to change necessary policies or sections of the plan. Mr. Seegmiller said an idea for the Council to consider would be to adopt the plan into the Zoning Ordinance and the Subdivision Regulations in order to take advantage of the extraterritorial capability. That will allow for hearings in the Planning & Zoning Commission as well as hearings in the Council. Councilman Hilton said it might be a good idea to develop the plan in a way that would cause the north side of Abilene to go ahead and develop in the in-fill areas. Mrs. Wooldridge said if development started in the northeast section of town and it was not properly regulated, then it could cause serious back up of water which would interfere with the flow coming from the south. Councilman Hilton was concerned that some of the detention facilities would cause back up also. He said when a facility gets so full, it will release the water anyway. Mrs. Wooldridge said by using administrative controls, the City should be able to instruct managers of detention facilities to either hold the water or let it go.

Councilman Hilton asked what the developers of the newly developed areas north of town do to control the flooding there. Mr. Whitehead said it is possible with some study to let the water just run to get out of the way before the water from the south part of town goes through. The Staff will have to find out exactly from what point the City could do that or how that concept could be worked into an ordinance.

Mr. Jerry Fleming said they did find where City would be better off letting some water run off without requiring detention facilities. The results of the Rainy Creek area concluded that development would increase the run off any more than what it is now. The water there runs off very quickly and the water upstream does not reach this area until several hours later. This area if developed would increase the run off only about 10 percent. His analysis includes Indian Creek also. Mr. Seegmiller said the ordinance was written so that the Council can deviate from the plan to adopt what is necessary in areas such as Rainy and Indian Creeks.

Councilwoman Webster thought that the plan was realistic and was glad to see the City was not wasting money on studies that were unfeasible. She said she does not want to see the Council reject the plan.

Mayor Hall said even if the Council accepts the plan, there will be many more things that will have to be done to the plan before the Council is through, such as public hearings, clarification, etc. Mr. Seegmiller said the Staff will know what is expected of them if the Council accepts the plan.

Councilman Hilton said the plan could be accepted with the understanding that there are other areas that the Council will continue to study, such as Lake Kirby as a detention facility, north Abilene, locations of other detention facilities, etc.

Councilman Hilton made the motion to accept the plan with the understanding that the Council will have to continue to look into some of the details of it. He also publicly thanked the Task Force members and said that the Council will proceed to implement the plan, but will have to refine certain areas of the plan which will be dealt with and will continue to consult the engineers, legal and other members of the City Staff. Councilwoman Webster seconded the motion. The motion carried as follows:

AYES: Councilman Bridges, Councilwoman Proctor, Councilmen Rodriguez, Fogle, Hilton, Councilwoman Webster and Mayor Hall.

NAYS: None.

FLOODWATER MANAGEMENT PLAN
ACCEPTED

Councilman Fogle wanted to add that the Council should organize the implementation process like a schedule as to when they will consider details, have public hearings, etc., otherwise, the whole plan may be forgotten.

Councilman Rodriguez also added that the Council is going to have to work with the media to get the word out to the citizens what the City plans to do--the citizens are the ones that will actually make the final decision and he felt they should be well aware of what the City is doing.

Mayor Hall said the Public Information Committee of the Mayor's Task Force has told him that they want to take part in informing the citizens and the campaign for the bond sale.


Mayor Hall asked that the Staff look into how many man hours and what the cost will be to enforce the plan's restrictions.

Mr. Seegmiller said each and every segment of what the Council wants to look at of the plan has to be refined and approved by the Council. Hopefully, the citizens will understand that the Council voted to accept the plan--not jump into it right now without more study and refinement.

Councilwoman Webster suggested studying each part of the plan, then breaking it down more so it will prove to be more manageable. She also agreed that the refinement should take place in a timely manner.

Mrs. Wooldridge complimented the Council as a citizen on accepting the plan. She said she would like to thank the Council for the Task Force on asking them to contribute to such an important project.

Mayor Hall adjourned the meeting at 4:50 p.m.


Assistant City Secretary


Mayor